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1995
MISSOURI
EMERGENCY SERVICE VEHICLE
CRASHES

Missouri State Highway Patrol

A division of the

Department of Public Safety

1995
MISSOURI
EMERGENCY SERVICE VEHICLE
CRASHES

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FOREWORD

This publication was produced by the Missouri State Highway Patrol at the request of the Missouri Division of Highway Safety.

It is the vision of the Missouri Division of Highway Safety to reduce the number and severity of traffic crashes occurring in Missouri by implementing the Governor's Highway Safety Program (according to the Federal Highway Safety Act of 1966). To provide the highest quality of service to our customers through fairness, responsiveness, and dedication.

Our values are:

- We believe in the right of the State of Missouri to determine how Highway Safety resources can best be utilized to serve the citizens of this State;
- We believe the Missouri Division of Highway Safety has a responsibility to develop a Highway Safety Plan which is based on state and local needs and which is data driven;
- We believe our customers are comprised of all people using the roadways of Missouri and every effort should be made to serve these customers to the best of our ability;
- We believe we have a responsibility to keep both law enforcement and citizens abreast of current Missouri laws and safety issues;
- We believe the Division of Highway Safety is accountable to the citizens and the Governor for administering Missouri's federal highway safety funding in a responsible manner emphasizing equity, quality, and efficiency;
- We believe in the development of partnerships between the public and private sector resulting in a more effective use of resources and expertise;
- We believe our employees must be ethical and professional and should serve our customers in a manner reflecting these traits.

Traffic safety officials and managers of emergency vehicles should carefully review this document and analyze their own operation and accident experience to insure that proper precautions and training measures have been implemented at their level.

If you require more information on traffic safety programs or need additional statistical information services, please forward your requests to my office.

Sincerely,

Dan A. Needham
Director

ACKNOWLEDGEMENTS

The Missouri Division of Highway Safety requested publication of this report to determine the magnitude, severity, and characteristics of traffic crashes involving emergency service vehicles in the State.

The primary source of information in this report were traffic crash data obtained from the Statewide Traffic Accident Records System (STARS). The Missouri State Highway Patrol, Traffic Division, is responsible for coordinating the STARS program as well as encoding all traffic crash data being reported.

Special recognition is given to all Missouri law enforcement agencies and officers who provide traffic crash investigation services on Missouri roadways and report their findings to STARS. Because of their efforts, traffic safety authorities have the capability of conducting analysis on Missouri's emergency service vehicle traffic crash problems.

The Missouri Traffic Records Committee was established as an advisory body to the Missouri State Highway Patrol for maintaining and improving STARS. Largely as a result of this Committee's efforts, STARS and its field reporting form were upgraded as of January 1, 1996.

Finally, the U.S. Department of Transportation, National Highway Traffic Safety Administration, has supported the Statistical Analysis Center's efforts to provide meaningful research services and publications to Missouri traffic safety authorities. Their financial support and technical assistance is appreciated.



Martin P. Carso, Jr., Director
Statistical Analysis Center
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EXECUTIVE SUMMARY

The purpose of this report is to provide the Missouri State Highway Patrol, the Missouri Division of Highway Safety, and other State and local authorities with information on the problem of emergency service vehicle traffic crashes in the State of Missouri. In 1995, Missouri experienced 1,892 emergency service vehicle traffic crashes. Crashes of this nature are of special concern to traffic safety authorities because emergency service vehicles and, more importantly, their staff are critical public safety resources whose loss due to traffic crashes adversely affects the public welfare.

The primary source of data used in this study was the Missouri Statewide Traffic Accident Records System (STARS).

In 1995, there were 1,892 Missouri traffic crashes involving 1,945 emergency service vehicles. Six persons were killed and 716 persons were injured in these traffic crashes. Of the 1,945 emergency service vehicles involved, 396 (20.4%) were on an emergency run at the time of the crash. The seriousness of these traffic crashes is compounded by the fact that the incident no doubt delayed or prevented the unit from responding to the original emergency situation.

Police vehicles account for the majority of emergency service vehicles involved in Missouri traffic crashes. Of the 1,945 emergency vehicles involved in 1995 traffic crashes, 1,591 (81.8%) were law enforcement vehicles. This finding is not surprising since there are a significantly greater number of police vehicles in operation compared to ambulances and fire vehicles. In addition, many law enforcement units patrol Missouri roadways throughout their shift, while ambulances and fire vehicles are normally stationed at fixed locations until called to respond to a situation.

Of the 1,945 emergency vehicles involved in 1995 Missouri traffic crashes, 174 (9.0%) were fire vehicles. Although no accurate count is available, the number of fire vehicles in the State is estimated to be larger than the ambulance vehicle population but much less than the police vehicle population. As with ambulances, fire vehicles made up a higher proportion of those vehicles involved in traffic crashes while on emergency runs. Of the 396 vehicles making an emergency run when involved in a traffic crash in 1995, 65 (16.4%) were vehicles of this type.

Of the 1,945 emergency service vehicles involved in 1995 Missouri traffic crashes, 172 (8.8%) were ambulances. However, ambulances do not make up a large proportion of the State's emergency service vehicle population. According to the Missouri Department of Health, Emergency Services Bureau, there were only 846 licensed ambulances in the State as of July 30, 1996. Ambulances also made up a higher proportion of emergency service vehicles involved in traffic crashes while making emergency runs. Of the 396 emergency service vehicles involved in 1995 Missouri traffic crashes while on emergency runs, 52 (13.1%) were ambulances.

INTRODUCTION

This report is one in a series which identifies the magnitude, severity, and characteristics of emergency service vehicles involved in traffic crashes occurring in the State of Missouri. It describes Missouri's emergency service vehicle traffic crash experience in 1995.

Missouri traffic safety authorities have expressed an interest in studying these types of incidents for a number of reasons. First, in a sizable portion of these incidents, the emergency service vehicles are responding to other emergency situations. In most instances, their involvement in traffic crashes either delays or totally prevents them from providing the emergency care services being requested. The timeliness of providing their services can be a critical factor in preventing further death, serious injury, and/or property damage in emergency situations.

Second, emergency service vehicles and, more importantly, the staff who operate them are critical public safety resources which the community can ill afford to lose as a result of their involvement in traffic crashes. Costs associated with vehicle replacement or repair are high because these types of vehicles are configured for emergency response (i.e., heavy suspension systems, larger engines, improved braking systems, emergency lights, siren, etc.). Even more significant are losses resulting from qualified emergency service staff being killed or injured in these traffic crashes. The loss of technically trained emergency service manpower reduces the community's capabilities to adequately respond to future emergency situations.

Finally, emergency vehicles involved in traffic crashes can result in death and injury to not only emergency vehicle staff but to other parties involved in the traffic crash.

Data used in this study were obtained from the Missouri Statewide Traffic Accident Records System (STARS). This system is maintained by the Missouri State Highway Patrol (MSHP). In accordance with State statute, law enforcement agencies are required to investigate traffic crashes occurring on public roadways if they involve a death or personal injury or property damage over \$500.00. They submit their findings on a standard traffic accident report form to the STARS system. This standard traffic accident report form contains two fields designed to identify whether the vehicles involved were emergency service vehicles, the type of emergency service vehicle (police, fire, ambulance, or other), and whether or not it was on an emergency run.

Data from the traffic accident report forms are encoded by MSHP staff in computerized files. These files were made available to the MSHP Statistical Analysis Center (SAC) staff who conducted the analysis.

Additional quality control analysis was conducted on 1995 STARS data which led to better identification and encoding of emergency service vehicle related traffic crashes. As a result, this report is much more comprehensive than previous editions. Because more complete emergency service vehicle data were reported in 1995, no trend analysis comparing current year with prior year's activity was included in this report.

It should be noted that not all motor vehicle incidents involving damage to emergency service vehicles or injury to its staff were analyzed in this study due to data non-availability. Data on traffic crashes occurring on private property, such as a private driveway, were not attainable for this analysis. In addition, certain incidents are not classified as traffic crashes. For instance, in cases where police establish a roadblock and a pursued person uses their vehicle to intentionally ram the blocking police vehicle, these incidents are not classified as traffic crashes and are not included in this analysis.

The findings from this study are described in the following four sections. The first section provides an overview of Missouri's emergency services traffic crash problem. The second section describes the findings from an analysis which focuses on police vehicle involvement. The third section describes fire vehicle involvement and the last section covers ambulance involvement.

1.0 EMERGENCY SERVICE VEHICLE INVOLVEMENT OVERVIEW

This section presents a series of data displays which describe Missouri's emergency service vehicle traffic crash activity. Traffic crashes involving emergency service vehicles are defined as any crash in which one or more emergency service vehicles were directly involved in the incident. Emergency service vehicles include those assigned to law enforcement agencies, fire departments, and ambulance service agencies. In addition, vehicles operated by other agencies, such as public utilities and public service corporations, are considered emergency vehicles but only when they are actually performing emergency services.

SUMMARY OF ANALYSIS

- In 1995 there were 1,892 traffic crashes involving 1,945 emergency service vehicles in the State of Missouri. Six persons were killed and 716 persons were injured in these traffic crashes. One person was killed or injured every 12.1 hours in these types of crashes in 1995.
- Police vehicles comprise the largest number of emergency service vehicles involved in Missouri's traffic crashes. Of the 1,945 emergency service vehicles involved, 1,591 (81.8%) were police vehicles. They were involved in a total of 1,551 traffic crashes. A total of 396 emergency service vehicles were on emergency runs when the traffic crash occurred. Of these, 271 (68.4%) were police vehicles. Law enforcement officers on-duty annual miles of travel are, no doubt, much greater than other types of emergency service providers. A large proportion of law enforcement officers are assigned to patrol Missouri's roadways throughout their normal shift of operations for crime prevention purposes as well as to provide quick response to calls for services. Normally, fire and ambulance service personnel are stationed at fixed locations from which they respond to emergency situations. In addition, there are larger numbers of police vehicles working Missouri's roadways than either ambulances or fire vehicles. The fact that law enforcement officers' on-duty miles of travel are substantially greater increases their risk of being involved in traffic crashes.
- Fire vehicles were the second most common type of emergency vehicle involved in Missouri's traffic crashes in 1995. Of the 1,945 emergency vehicles involved in 1995 Missouri traffic crashes, 174 (9.0%) were fire vehicles. They were involved in a total of 170 traffic crashes. Of the 396 emergency vehicles on emergency run at the time of the traffic crash, 65 (16.4%) were fire vehicles.
- Ambulances were the third most frequent emergency vehicle type involved in Missouri's 1995 traffic crashes. Of the 1,945 emergency vehicles involved, 172 (8.8%) were ambulances. They were involved in a total of 171 traffic crashes. Like fire vehicles, ambulances were more likely to be involved in a traffic crash when on an emergency run. Of the 396 emergency vehicles on emergency run when the traffic crash occurred, 13.1% were ambulances.
- Emergency vehicles classified as 'Other' made up a small proportion of those involved in Missouri's 1995 traffic crashes. Of the 1,945 emergency vehicles involved, only 8 (0.4%) were emergency vehicles classified as 'Other'.

1995 MISSOURI TRAFFIC CRASHES

EMERGENCY SERVICE (ES) VEHICLE INVOLVEMENT

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
ES VEHICLE INVOLVED	6	0.6	450	0.9	1,436	1.1	1,892	1.0
NO ES VEHICLE INVOLVED	979	99.4	51,503	99.1	131,541	98.9	184,023	99.0
TOTAL	985	100.0	51,953	100.0	132,977	100.0	185,915	100.0

TABLE 1.0.1

MISSOURI EMERGENCY SERVICE VEHICLE PERSONAL INJURY PROBLEM ANALYSIS CLOCK

1995

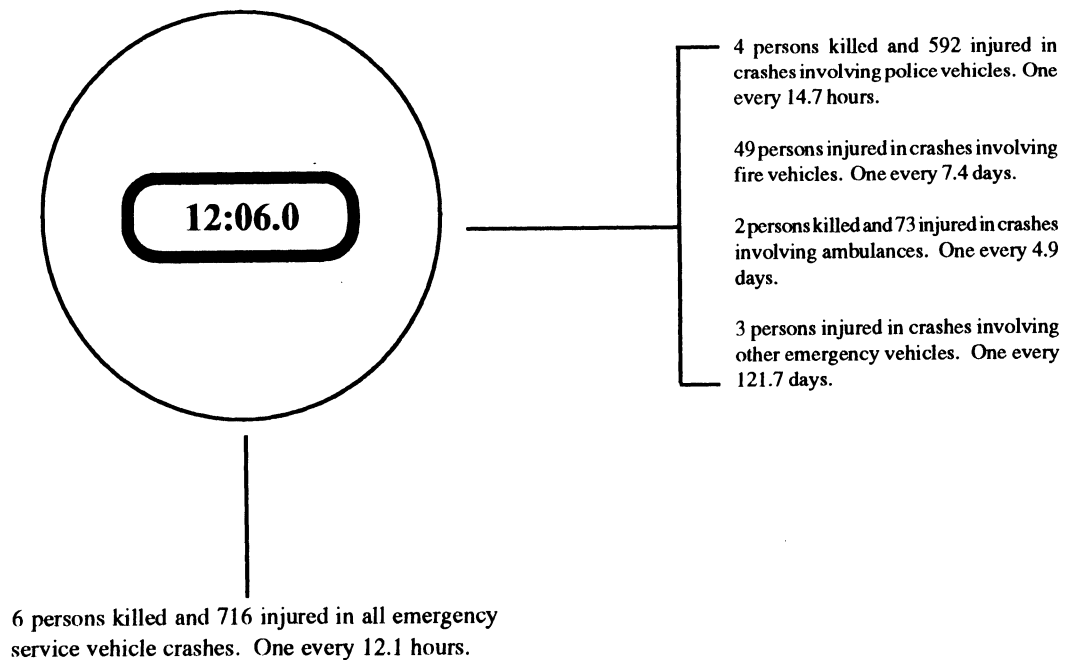


FIGURE 1.0.1

1995 MISSOURI EMERGENCY SERVICE (ES) VEHICLE CRASHES

TYPE OF EMERGENCY SERVICE VEHICLE INVOLVED

	FATAL	PERSONAL INJURY	PROPERTY DAMAGE	TOTAL	NUMBER OF ES VEHICLES INVOLVED¹
TOTAL NUMBER OF ES VEHICLE CRASHES	6	450	1,436	1,892	1,945
INVOLVING					
POLICE VEHICLE	4	380	1,167	1,551	1,591
FIRE VEHICLE	0	29	141	170	174
AMBULANCE	2	39	130	171	172
OTHER ES VEHICLE	0	3	5	8	8

¹The number of emergency service vehicles involved does not equal the number of emergency service traffic crashes since there are cases where more than one emergency service vehicle was involved in the same traffic crash. There were 1,892 traffic crashes involving 1,945 emergency service vehicles

TABLE 1.0.2

**TYPE OF EMERGENCY SERVICE VEHICLES INVOLVED IN
1995 MISSOURI TRAFFIC CRASHES**

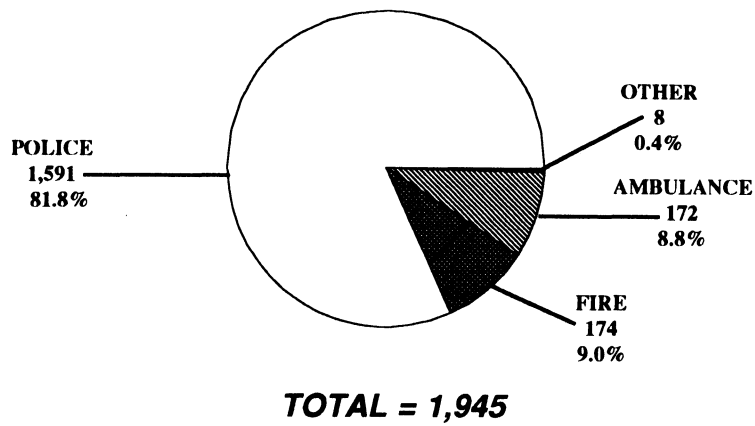


FIGURE 1.0.2

**TYPE OF EMERGENCY SERVICE
VEHICLES INVOLVED IN 1995 MISSOURI
TRAFFIC CRASHES WHILE ON
EMERGENCY RUN**

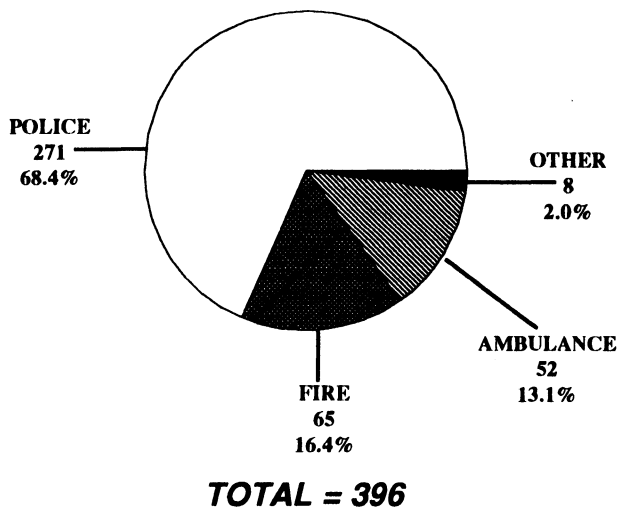


FIGURE 1.0.3

**TYPE OF EMERGENCY SERVICE
VEHICLES INVOLVED IN 1995 MISSOURI
TRAFFIC CRASHES NOT ON
EMERGENCY RUN**

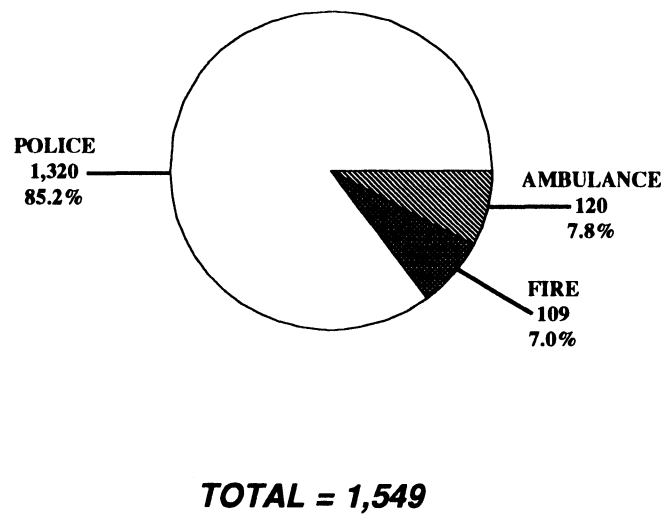


FIGURE 1.0.4

2.0 POLICE VEHICLE INVOLVEMENT

This section presents a series of data displays which identify police vehicle involvement in Missouri's traffic crash activity. Police vehicle traffic crashes are defined as any crash in which one or more police vehicles were directly involved in the incident. Data displays also are provided which describe characteristics of the police vehicle drivers involved in these traffic crashes.

1995 SUMMARY ANALYSIS

- In 1995, there were 1,551 traffic crashes involving one or more police vehicles in the State of Missouri. Four persons were killed and 592 were injured in these crashes.
- In 16.9% of the traffic crashes involving police vehicles, the police vehicle was on an emergency run at the time of the incident.
- In 1995, one person was killed or injured in a police vehicle related crash every 14.7 hours in the State of Missouri.
- Of all 1995 crashes involving police vehicles, the first harmful event in 58.5% of the cases involved one motor vehicle in transport striking another motor vehicle in transport. In 17.9% of the cases, it involved a motor vehicle striking a fixed object. In 13.4% of the cases, the vehicle struck a parked vehicle.
- Of all 1995 crashes involving police vehicles, 70.2% occurred in an urban area of the State and 29.8% occurred in a rural area.
- Of all police vehicle drivers involved in 1995 traffic crashes, 91.7% were male and 8.3% were female. The average age of the police vehicle driver was 33.9 years.
- There were 1,591 police vehicles involved in the 1,551 traffic crashes in the State. Of these, 1,476 or 92.9% were automobiles.

1995 POLICE VEHICLE INVOLVED CRASHES

EMERGENCY RUN STATUS

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%	TOTAL NUMBER ¹		POLICE VEHICLE DRIVERS/PASSENGERS ²	
	KILLED	INJURED	KILLED	INJURED								
POLICE VEHICLE ON RUN	0	0.0	85	22.4	177	15.2	262	16.9	0	134	0	73
POLICE VEHICLE NOT ON RUN	4	100.0	295	77.6	990	84.8	1,289	83.1	4	458	1	245
TOTAL	4	100.0	380	100.0	1,167	100.0	1,551	100.0	4	592	1	318

¹This statistic indicates the total number of persons killed and injured in a crash where one or more police vehicles were involved.

²This statistic indicates the number of police vehicle drivers and passengers killed and injured.

TABLE 2.0.1

1995 POLICE VEHICLE INVOLVED CRASHES

CRASH TYPE BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
ANIMAL	0	0.0	1	0.3	71	6.1	72	4.6
BICYCLIST	0	0.0	4	1.1	0	0.0	4	0.3
FIXED OBJECT	1	25.0	39	10.3	238	20.4	278	17.9
OTHER OBJECT	0	0.0	1	0.3	37	3.2	38	2.5
PEDESTRIAN	2	50.0	9	2.4	0	0.0	11	0.7
TRAIN	0	0.0	1	0.3	0	0.0	1	0.1
VEHICLE IN TRANSPORT	1	25.0	288	75.8	619	53.0	908	58.5
VEHICLE ON OTHER ROADWAY	0	0.0	0	0.0	3	0.3	3	0.2
PARKED VEHICLE	0	0.0	23	6.1	184	15.8	207	13.4
NON-COLLISION OVERTURN	0	0.0	6	1.6	0	0.0	6	0.4
NON-COLLISION OTHER	0	0.0	8	2.1	15	1.3	23	1.5
TOTAL	4	100.0	380	100.0	1,167	100.0	1,551	100.0

TABLE 2.0.2

1995 POLICE VEHICLE INVOLVED CRASHES

AREA CLASSIFICATION BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
URBAN	1	25.0	276	72.6	811	69.5	1,088	70.2
RURAL	3	75.0	104	27.4	356	30.5	463	29.8
TOTAL	4	100.0	380	100.0	1,167	100.0	1,551	100.0

TABLE 2.0.3

1995 POLICE VEHICLE INVOLVED CRASHES

ROAD CURVATURE BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
STRAIGHT	3	75.0	334	88.4	1,014	87.9	1,351	88.0
CURVE	1	25.0	44	11.6	140	12.1	185	12.0
UNKNOWN	0	-	2	-	13	-	15	-
TOTAL	4	100.0	380	100.0	1,167	100.0	1,551	100.0

TABLE 2.0.4

1995 POLICE VEHICLE INVOLVED CRASHES

ROAD INCLINE BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
LEVEL	1	25.0	259	68.5	749	64.9	1,009	65.7
HILL	3	75.0	112	29.6	375	32.5	490	31.9
CREST	0	0.0	7	1.9	30	2.6	37	2.4
UNKNOWN	0	-	2	-	13	-	15	-
TOTAL	4	100.0	380	100.0	1,167	100.0	1,551	100.0

TABLE 2.0.5

1995 POLICE VEHICLE INVOLVED CRASHES

ROAD CONDITIONS BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
DRY	4	100.0	285	75.2	869	75.0	1,158	75.2
WET	0	0.0	79	20.8	201	17.4	280	18.2
SNOW	0	0.0	4	1.1	27	2.3	31	2.0
ICE	0	0.0	11	2.9	59	5.1	70	4.5
MUD	0	0.0	0	0.0	2	0.2	2	0.1
UNKNOWN	0	-	1	-	9	-	10	-
TOTAL	4	100.0	380	100.0	1,167	100.0	1,551	100.0

TABLE 2.0.6

1995 POLICE VEHICLE INVOLVED CRASHES

HIGHWAY CLASSIFICATION BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
INTERSTATE	0	0.0	35	9.2	96	8.2	131	8.5
U.S. HIGHWAY	1	25.0	33	8.7	100	8.6	134	8.6
STATE NUMBERED	0	0.0	46	12.1	116	9.9	162	10.4
SINGLE STATE LETTERED	0	0.0	14	3.7	51	4.4	65	4.2
DOUBLE STATE LETTERED	1	25.0	11	2.9	27	2.3	39	2.5
OUTER ROAD	0	0.0	6	1.6	8	0.7	14	0.9
COUNTY ROAD	1	25.0	26	6.8	101	8.7	128	8.3
CITY STREET	0	0.0	193	50.8	599	51.3	792	51.1
INTERSTATE LOOP	0	0.0	3	0.8	4	0.3	7	0.5
OTHER ¹	1	25.0	13	3.4	65	5.6	79	5.1
TOTAL	4	100.0	380	100.0	1,167	100.0	1,551	100.0

¹ "Other" includes types of roads that are maintained by the State as well as by local jurisdictions.

TABLE 2.0.7

1995 POLICE VEHICLE INVOLVED CRASHES

HIGHWAY CLASSIFICATION BY AREA CLASSIFICATION AND CRASH SEVERITY

	URBAN								RURAL							
	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
INTERSTATE	0	0.0	25	9.1	59	7.3	84	7.7	0	0.0	10	9.6	37	10.4	47	10.2
U.S. HIGHWAY	1	100.0	20	7.3	50	6.2	71	6.5	0	0.0	13	12.5	50	14.0	63	13.6
STATE NUMBERED	0	0.0	19	6.9	54	6.7	73	6.7	0	0.0	27	26.0	62	17.4	89	19.2
SINGLE STATE LETTERED	0	0.0	2	0.7	10	1.2	12	1.1	0	0.0	12	11.5	41	11.5	53	11.5
DOUBLE STATE LETTERED	0	0.0	5	1.8	5	0.6	10	0.9	1	33.3	6	5.8	22	6.2	29	6.3
OUTER ROAD	0	0.0	3	1.1	8	1.0	11	1.0	0	0.0	3	2.9	0	0.0	3	0.7
COUNTY ROAD	0	0.0	8	2.9	28	3.5	36	3.3	1	33.3	18	17.3	73	20.5	92	19.9
CITY STREET	0	0.0	184	66.7	540	66.6	724	66.5	0	0.0	9	8.7	59	16.6	68	14.7
INTERSTATE LOOP	0	0.0	2	0.7	4	0.5	6	0.6	0	0.0	1	1.0	0	0.0	1	0.2
OTHER ¹	0	0.0	8	2.9	53	6.5	61	5.6	1	33.3	5	4.8	12	3.4	18	3.9
TOTAL	1	100.0	276	100.0	811	100.0	1,088	100.0	3	0.0	104	100.0	356	100.0	463	100.0

¹ "Other" includes types of roads that are maintained by the State as well as by local jurisdictions.

TABLE 2.0.8

1995 POLICE VEHICLE INVOLVED CRASHES MONTH OF YEAR

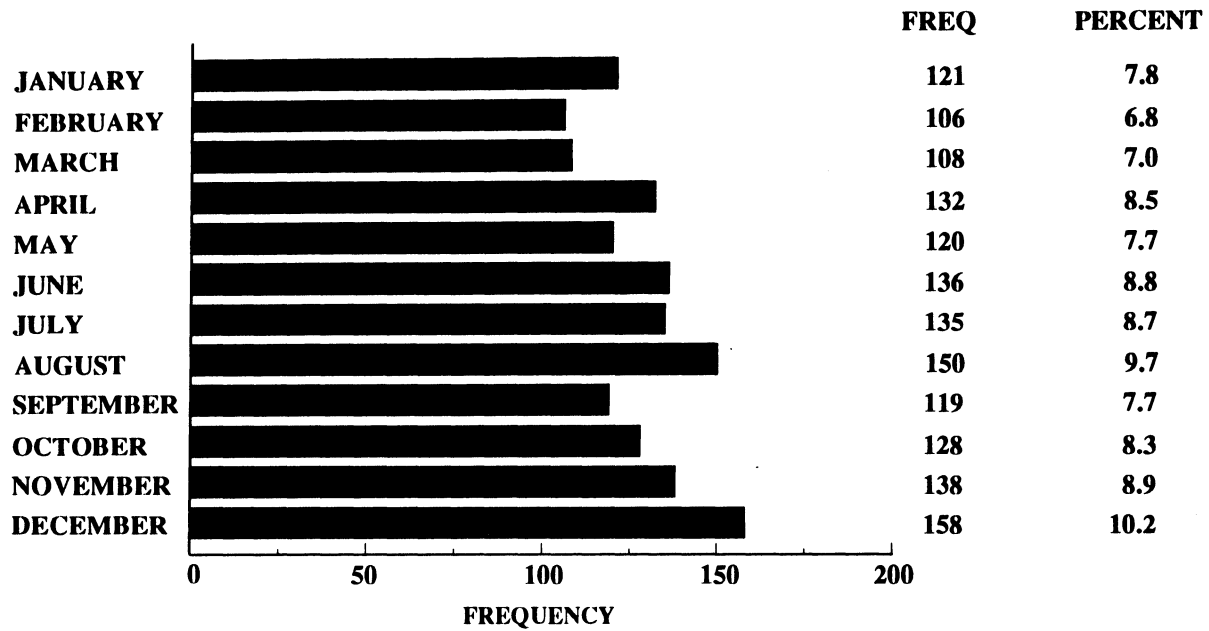
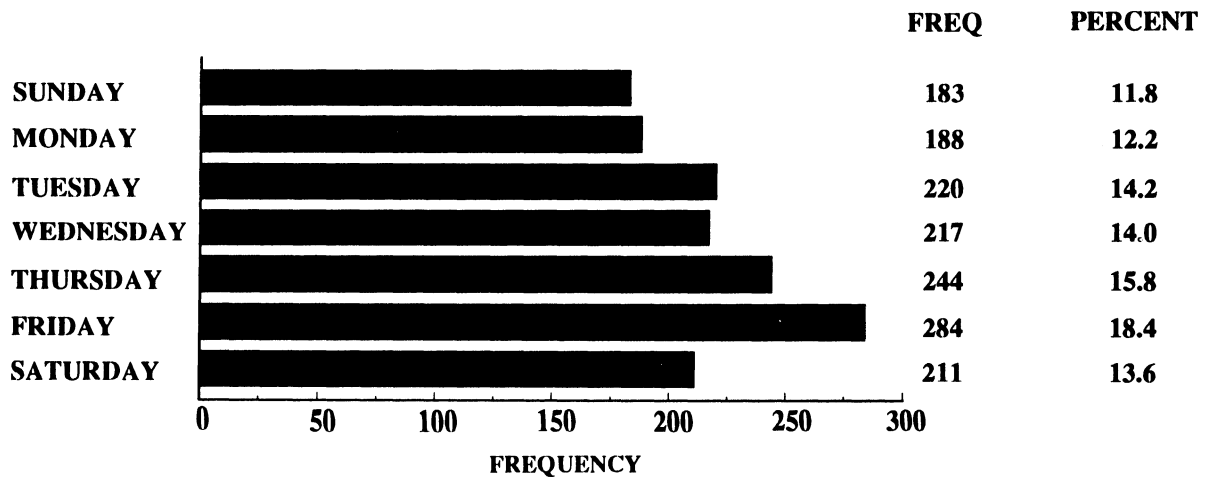


FIGURE 2.0.1

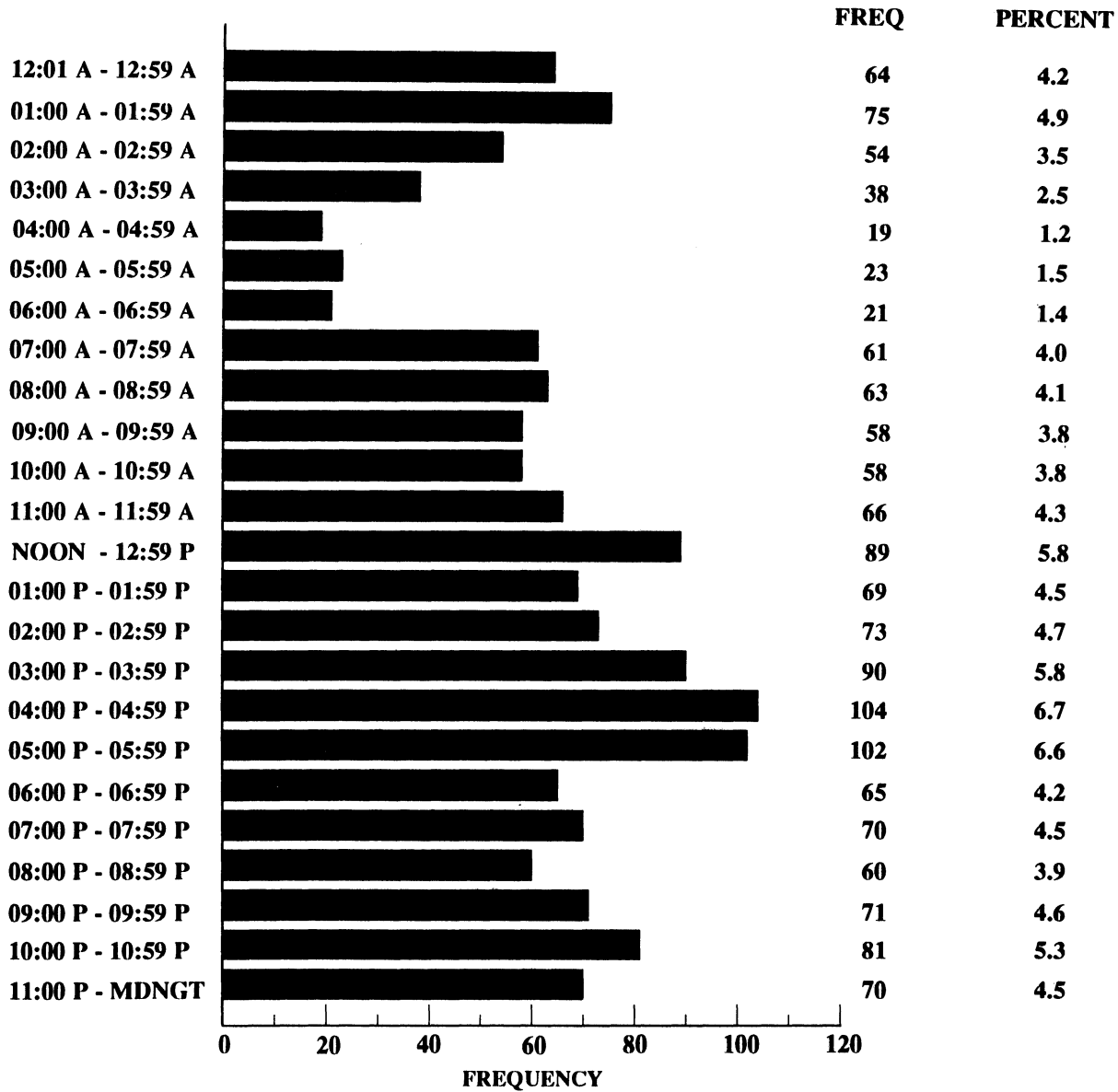
1995 POLICE VEHICLE INVOLVED CRASHES DAY OF WEEK



UNKNOWN DATA NOT INCLUDED

FIGURE 2.0.2

1995 POLICE VEHICLE INVOLVED CRASHES HOUR OF DAY



UNKNOWN DATA NOT INCLUDED

FIGURE 2.0.3

1995 MISSOURI POLICE VEHICLE CRASHES

TYPE OF CIRCUMSTANCE INVOLVED BY CRASH SEVERITY AND PERSON CLASSIFICATION¹

FATAL AND PERSONAL INJURY POLICE VEHICLE CRASHES = 384				TOTAL POLICE VEHICLE CRASHES = 1,551		
	DRIVER OF POLICE VEHICLE/ VEHICLE	OTHER DRIVER/ VEHICLE/ PEDESTRIAN	TOTAL F & PI	DRIVER OF POLICE VEHICLE/ VEHICLE	OTHER DRIVER/ VEHICLE/ PEDESTRIAN	TOTAL CRASHES
VEHICLE DEFECTS	1.3	2.9	3.9	1.4	1.7	3.0
EXCEEDING SPEED LIMIT/ TOO FAST FOR CONDITIONS	11.7	14.1	25.8	7.2	8.0	15.2
IMPROPER PASSING	0.5	0.5	1.0	0.3	0.8	1.2
VIOLATION OF STOP SIGN	1.0	9.1	10.2	0.7	3.5	4.2
WRONG SIDE NOT PASSING	0.5	2.6	3.1	0.4	1.5	1.9
FOLLOWING TOO CLOSE	1.3	5.5	6.5	1.4	3.0	4.4
IMPROPER SIGNAL	0.0	0.8	0.8	0.1	0.5	0.6
IMPROPER BACKING	1.3	1.0	2.3	1.7	3.2	4.9
IMPROPER TURN	1.6	2.6	4.2	1.0	3.2	4.1
IMPROPER LANE USAGE/CHANGE	0.3	2.6	2.9	0.5	2.5	2.9
WRONG WAY ONE-WAY STREET	0.8	0.0	0.8	0.4	0.2	0.6
IMPROPER START FROM PARK	0.3	0.0	0.3	0.1	0.5	0.6
IMPROPERLY PARKED	0.3	0.5	0.8	0.3	1.1	1.4
FAILED TO YIELD	4.4	22.9	27.1	2.7	14.2	16.7
DRINKING	0.0	9.4	9.4	0.1	6.1	6.2
DRUGS	0.0	1.0	1.0	0.0	0.7	0.7
PHYSICAL IMPAIRMENT	0.3	0.3	0.5	0.1	0.3	0.5
INATTENTION	8.9	45.3	52.3	17.2	32.0	47.6

¹This table identifies the percentage of crashes involving one or more police vehicles having a specific type of circumstance which contributed to the cause of the crash. This table further defines the percentage of crashes where the contributing circumstance was associated with the driver or his police vehicle as well as those attributed to other persons and vehicles in the crash. For instance, when examining speed involvement in 1995 Missouri police vehicle crashes, it was found that a police vehicle driver was speeding in 7.2% of the crashes. In 8.0% of the crashes another driver was speeding. In 15.2% of the crashes either a police vehicle driver, another driver, or both drivers were speeding.

TABLE 2.0.9

POLICE VEHICLES INVOLVED IN 1995 MISSOURI CRASHES

TYPE OF VEHICLE BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
AUTOMOBILE	3	75.0	363	92.1	1,110	93.2	1,476	92.9
STATION WAGON	0	0.0	1	0.3	2	0.2	3	0.2
SPORT UTILITY VEHICLE	1	25.0	2	0.5	13	1.1	16	1.0
VAN/SMALL BUS	0	0.0	19	4.8	41	3.4	60	3.8
MOTORCYCLE	0	0.0	6	1.5	5	0.4	11	0.7
OTHER TRANSPORT DEVICE	0	0.0	0	0.0	3	0.3	3	0.2
PICK-UP TRUCK	0	0.0	3	0.8	12	1.0	15	0.9
OTHER TRUCK	0	0.0	0	0.0	5	0.4	5	0.3
UNKNOWN	0	-	0	-	2	-	2	-
TOTAL	4	100.0	394	100.0	1,193	100.0	1,591	100.0

TABLE 2.0.10

POLICE VEHICLES INVOLVED IN 1995 MISSOURI CRASHES

DRIVER INVOLVEMENT BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
DRIVERLESS	0	0.0	24	6.1	152	12.7	176	11.1
KNOWN DRIVER INVOLVED	4	100.0	368	93.4	1,035	86.8	1,407	88.4
UNKNOWN DRIVER INVOLVED	0	0.0	2	0.5	6	0.5	8	0.5
TOTAL	4	100.0	394	100.0	1,193	100.0	1,591	100.0

TABLE 2.0.11

DRIVERS OF POLICE VEHICLES INVOLVED IN 1995 MISSOURI CRASHES

SEX OF DRIVER BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
MALE	4	100.0	327	88.9	959	92.7	1,290	91.7
FEMALE	0	0.0	41	11.1	76	7.3	117	8.3
UNKNOWN	0	-	2	-	6	-	8	-
TOTAL	4	100.0	370	100.0	1,041	100.0	1,415	100.0

TABLE 2.0.12

DRIVERS OF POLICE VEHICLES INVOLVED IN 1995 MISSOURI CRASHES

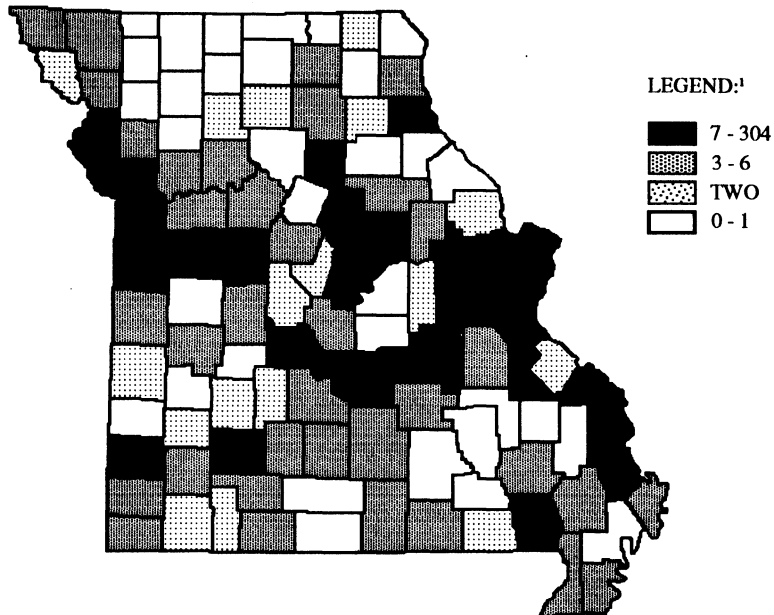
AGE OF DRIVER BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
AVERAGE AGE OF DRIVER	31.3	-	33.4	-	34.1	-	33.9	-
15 YEARS AND UNDER	0	0.0	0	0.0	0	0.0	0	0.0
16 - 20 YEARS	0	0.0	1	0.3	6	0.6	7	0.5
21 - 25 YEARS	0	0.0	77	21.0	214	20.8	291	20.8
26 - 30 YEARS	1	25.0	92	25.1	259	25.2	352	25.1
31 - 35 YEARS	3	75.0	63	17.2	169	16.4	235	16.8
36 - 40 YEARS	0	0.0	56	15.3	128	12.4	184	13.1
41 - 45 YEARS	0	0.0	45	12.3	96	9.3	141	10.1
46 - 50 YEARS	0	0.0	16	4.4	79	7.7	95	6.8
51 - 55 YEARS	0	0.0	12	3.3	51	5.0	63	4.5
56 - 60 YEARS	0	0.0	2	0.5	17	1.7	19	1.4
61 - 65 YEARS	0	0.0	1	0.3	4	0.4	5	0.4
66 YEARS AND OVER	0	0.0	2	0.5	6	0.6	8	0.6
UNKNOWN	0	-	3	-	12	-	15	-
TOTAL	4	100.0	370	100.0	1,041	100.0	1,415	100.0

TABLE 2.0.13

1995 POLICE VEHICLE INVOLVED CRASHES

COUNTY QUARTILE ANALYSIS



¹LEGEND CATEGORIES ARE BASED ON QUARTILES OF COUNTIES.

RANK	COUNTY	FREQUENCY	PERCENT	RANK	COUNTY	FREQUENCY	PERCENT
1.0	ST. LOUIS CITY	304	19.6	20.5	PHELPS	10	0.6
2.0	ST. LOUIS	279	18.0	20.5	PULASKI	10	0.6
3.0	JACKSON	276	17.8	23.0	MARION	9	0.6
4.0	ST. CHARLES	72	4.6	23.0	PETTIS	9	0.6
5.0	JEFFERSON	54	3.5	23.0	WARREN	9	0.6
6.0	CLAY	47	3.0	25.5	RANDOLPH	8	0.5
7.0	GREENE	30	1.9	25.5	SCOTT	8	0.5
8.0	JASPER	27	1.7	28.0	CALLAWAY	7	0.5
9.5	BOONE	26	1.7	28.0	CRAWFORD	7	0.5
9.5	CAPE GIRARDEAU	26	1.7	28.0	PERRY	7	0.5
11.0	BUCHANAN	23	1.5	-----			
12.0	COLE	22	1.4	First Quartile			
13.0	FRANKLIN	18	1.2	-----			
15.0	BUTLER	13	0.8	Second Quartile			
15.0	CAMDEN	13	0.8	31.0	COOPER	6	0.4
15.0	PLATTE	13	0.8	31.0	TANEY	6	0.4
17.0	ST. FRANCOIS	12	0.8	31.0	TEXAS	6	0.4
18.5	CASS	11	0.7	35.5	ADAIR	5	0.3
18.5	JOHNSON	11	0.7	35.5	CARROLL	5	0.3
				35.5	CHRISTIAN	5	0.3

RANK	COUNTY	FREQUENCY	PERCENT	RANK	COUNTY	FREQUENCY	PERCENT
35.5	DENT	5	0.3	74.0	POLK	2	0.1
35.5	NEWTON	5	0.3	74.0	RIPLEY	2	0.1
35.5	SALINE	5	0.3	74.0	STE. GENEVIEVE	2	0.1
44.5	BATES	4	0.3	74.0	SCOTLAND	2	0.1
44.5	LAFAYETTE	4	0.3	74.0	SHELBY	2	0.1
44.5	LEWIS	4	0.3	74.0	STONE	2	0.1
44.5	MCDONALD	4	0.3	74.0	VERNON	2	0.1
44.5	MILLER	4	0.3	Third Quartile			
44.5	MISSISSIPPI	4	0.3	Fourth Quartile			
44.5	NODAWAY	4	0.3	90.0	CEDAR	1	0.1
44.5	PEMISCOTT	4	0.3	90.0	HENRY	1	0.1
44.5	RAY	4	0.3	90.0	HICKORY	1	0.1
44.5	WASHINGTON	4	0.3	90.0	IRON	1	0.1
44.5	WAYNE	4	0.3	90.0	MADISON	1	0.1
44.5	WEBSTER	4	0.3	90.0	MARIES	1	0.1
58.0	ANDREW	3	0.2	90.0	NEW MADRID	1	0.1
58.0	ATCHISON	3	0.2	90.0	OSAGE	1	0.1
58.0	AUDRAIN	3	0.2	90.0	OSAGE	1	0.1
58.0	BENTON	3	0.2	90.0	OZARK	1	0.1
58.0	CLINTON	3	0.2	90.0	PIKE	1	0.1
58.0	DUNKLIN	3	0.2	90.0	RALLS	1	0.1
58.0	HOWELL	3	0.2	90.0	REYNOLDS	1	0.1
58.0	LACLEDE	3	0.2	90.0	SCHUYLER	1	0.1
58.0	LAWRENCE	3	0.2	90.0	SULLIVAN	1	0.1
58.0	MACON	3	0.2	90.0	WORTH	1	0.1
58.0	MONTGOMERY	3	0.2	106.5	BARTON	0	0.0
58.0	OREGON	3	0.2	106.5	BOLLINGER	0	0.0
58.0	ST. CLAIR	3	0.2	106.5	CALDWELL	0	0.0
58.0	STODDARD	3	0.2	106.5	CARTER	0	0.0
58.0	WRIGHT	3	0.2	106.5	CHARITON	0	0.0
Second Quartile				106.5	CLARK	0	0.0
Third Quartile				106.5	DAVIESS	0	0.0
74.0	BARRY	2	0.1	106.5	DE KALB	0	0.0
74.0	DADE	2	0.1	106.5	DOUGLAS	0	0.0
74.0	DALLAS	2	0.1	106.5	GENTRY	0	0.0
74.0	GASCONADE	2	0.1	106.5	GRUNDY	0	0.0
74.0	HOLT	2	0.1	106.5	HARRISON	0	0.0
74.0	LINCOLN	2	0.1	106.5	HOWARD	0	0.0
74.0	LINN	2	0.1	106.5	KNOX	0	0.0
74.0	LIVINGSTON	2	0.1	106.5	MERCER	0	0.0
74.0	MONITEAU	2	0.1	106.5	MONROE	0	0.0
74.0	MORGAN	2	0.1	106.5	PUTNAM	0	0.0
				106.5	SHANNON	0	0.0

TABLE 2.0.14

3.0 FIRE VEHICLE INVOLVEMENT

This section presents a series of data displays which identify fire vehicle involvement in Missouri's traffic crash activity. Fire vehicle traffic crashes are defined as any crash in which one or more fire vehicles were directly involved in the incident. Data displays also are provided which describe characteristics of the fire vehicle drivers involved in these traffic crashes.

1995 SUMMARY ANALYSIS

- In 1995, there were 170 traffic crashes involving one or more fire vehicles in the State of Missouri. No persons were killed and 49 were injured in these crashes.
- In 37.1% of the traffic crashes involving fire vehicles, the fire vehicle was on an emergency run at the time of the incident.
- In 1995, one person was injured in a fire vehicle related crash every 7.4 days in the State of Missouri.
- Of all 1995 crashes involving fire vehicles, the first harmful event in 56.5% of the cases involved one motor vehicle in transport striking another motor vehicle in transport. In 28.2% of the cases, it involved a motor vehicle striking a parked vehicle. In 9.4% of the cases, the vehicle struck a fixed object.
- Of all 1995 crashes involving fire vehicles, 74.7% occurred in an urban area of the State and 25.3% occurred in a rural area.
- Of all fire vehicle drivers involved in 1995 traffic crashes, 99.3% were male and 0.7% were female. The average age of the fire vehicle driver was 36.9 years.

1995 FIRE VEHICLE INVOLVED CRASHES

EMERGENCY RUN STATUS

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%	TOTAL NUMBER ¹		FIRE VEHICLE DRIVERS/PASSENGERS ²	
									KILLED	INJURED	KILLED	INJURED
FIRE VEHICLE ON RUN	0	0.0	16	55.2	47	33.3	63	37.1	0	33	0	18
FIRE VEHICLE NOT ON RUN	0	0.0	13	44.8	94	66.7	107	62.9	0	16	0	7
TOTAL	0	100.0	29	100.0	141	100.0	170	100.0	0	49	0	25

¹This statistic indicates the total number of persons killed and injured in a crash where one or more fire vehicles were involved.

²This statistic indicates the number of fire vehicle drivers and passengers killed and injured.

TABLE 3.0.1

1995 FIRE VEHICLE INVOLVED CRASHES

CRASH TYPE BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
ANIMAL	0	0.0	0	0.0	0	0.0	0	0.0
BICYCLIST	0	0.0	0	0.0	0	0.0	0	0.0
FIXED OBJECT	0	0.0	3	10.3	13	9.2	16	9.4
OTHER OBJECT	0	0.0	1	3.5	2	1.4	3	1.8
PEDESTRIAN	0	0.0	1	3.5	0	0.0	1	0.6
TRAIN	0	0.0	0	0.0	0	0.0	0	0.0
VEHICLE IN TRANSPORT	0	0.0	19	65.5	77	54.6	96	56.5
VEHICLE ON OTHER ROADWAY	0	0.0	0	0.0	0	0.0	0	0.0
PARKED VEHICLE	0	0.0	2	6.9	46	32.6	48	28.2
NON-COLLISION OVERTURN	0	0.0	3	10.3	3	2.1	6	3.5
NON-COLLISION OTHER	0	0.0	0	0.0	0	0.0	0	0.0
TOTAL	0	0.0	29	100.0	141	100.0	170	100.0

TABLE 3.0.2

1995 FIRE VEHICLE INVOLVED CRASHES

AREA CLASSIFICATION BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
URBAN	0	0.0	20	69.0	107	75.9	127	74.7
RURAL	0	0.0	9	31.0	34	24.1	43	25.3
TOTAL	0	0.0	29	100.0	141	100.0	170	100.0

TABLE 3.0.3

1995 FIRE VEHICLE INVOLVED CRASHES

ROAD CURVATURE BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
STRAIGHT	0	0.0	24	82.8	120	87.6	144	86.8
CURVE	0	0.0	5	17.2	17	12.4	22	13.2
UNKNOWN	0	-	0	-	4	-	4	-
TOTAL	0	0.0	29	100.0	141	100.0	170	100.0

TABLE 3.0.4

1995 FIRE VEHICLE INVOLVED CRASHES

ROAD INCLINE BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
LEVEL	0	0.0	21	72.4	97	70.8	118	71.1
HILL	0	0.0	7	24.1	37	27.0	44	26.5
CREST	0	0.0	1	3.5	3	2.2	4	2.4
UNKNOWN	0	-	0	-	4	-	4	-
TOTAL	0	0.0	29	100.0	141	100.0	170	100.0

TABLE 3.0.5

1995 FIRE VEHICLE INVOLVED CRASHES

ROAD CONDITIONS BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
DRY	0	0.0	21	72.4	110	79.1	131	78.0
WET	0	0.0	7	24.1	22	15.8	29	17.3
SNOW	0	0.0	1	3.5	3	2.2	4	2.4
ICE	0	0.0	0	0.0	4	2.9	4	2.4
MUD	0	0.0	0	0.0	0	0.0	0	0.0
UNKNOWN	0	-	0	-	2	-	2	-
TOTAL	0	0.0	29	100.0	141	100.0	170	100.0

TABLE 3.0.6

1995 FIRE VEHICLE INVOLVED CRASHES

HIGHWAY CLASSIFICATION BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
INTERSTATE	0	0.0	2	6.9	8	5.7	10	5.9
U.S. HIGHWAY	0	0.0	3	10.3	5	3.6	8	4.7
STATE NUMBERED	0	0.0	1	3.5	15	10.6	16	9.4
SINGLE STATE LETTERED	0	0.0	0	0.0	6	4.3	6	3.5
DOUBLE STATE LETTERED	0	0.0	2	6.9	4	2.8	6	3.5
OUTER ROAD	0	0.0	0	0.0	3	2.1	3	1.8
COUNTY ROAD	0	0.0	4	13.8	14	9.9	18	10.6
CITY STREET	0	0.0	16	55.2	84	59.6	100	58.8
INTERSTATE LOOP	0	0.0	0	0.0	1	0.7	1	0.6
OTHER ¹	0	0.0	1	3.5	1	0.7	2	1.2
TOTAL	0	0.0	29	100.0	141	100.0	170	100.0

¹"Other" includes types of roads that are maintained by the State as well as by local jurisdictions.

TABLE 3.0.7

1995 FIRE VEHICLE INVOLVED CRASHES

HIGHWAY CLASSIFICATION BY AREA CLASSIFICATION AND CRASH SEVERITY

	URBAN								RURAL							
	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
INTERSTATE	0	0.0	0	0.0	7	6.5	7	5.5	0	0.0	2	22.2	1	2.9	3	7.0
U.S. HIGHWAY	0	0.0	1	5.0	3	2.8	4	3.2	0	0.0	2	22.2	2	5.9	4	9.3
STATE NUMBERED	0	0.0	1	5.0	10	9.4	11	8.7	0	0.0	0	0.0	5	14.7	5	11.6
SINGLE STATE LETTERED	0	0.0	0	0.0	2	1.9	2	1.6	0	0.0	0	0.0	4	11.8	4	9.3
DOUBLE STATE LETTERED	0	0.0	0	0.0	1	0.9	1	0.8	0	0.0	2	22.2	3	8.8	5	11.6
OUTER ROAD	0	0.0	0	0.0	2	1.9	2	1.6	0	0.0	0	0.0	1	2.9	1	2.3
COUNTY ROAD	0	0.0	1	5.0	2	1.9	3	2.4	0	0.0	3	33.3	12	35.3	15	34.9
CITY STREET	0	0.0	16	80.0	79	73.8	95	74.8	0	0.0	0	0.0	5	14.7	5	11.6
INTERSTATE LOOP	0	0.0	0	0.0	1	0.9	1	0.8	0	0.0	0	0.0	0	0.0	0	0.0
OTHER ¹	0	0.0	1	5.0	0	0.0	1	0.8	0	0.0	0	0.0	1	2.9	1	2.3
TOTAL	0	0.0	20	100.0	107	100.0	127	100.0	0	0.0	9	100.0	34	100.0	43	100.0

¹ "Other" includes types of roads that are maintained by the State as well as by local jurisdictions.

TABLE 3.0.8

1995 FIRE VEHICLE INVOLVED CRASHES MONTH OF YEAR

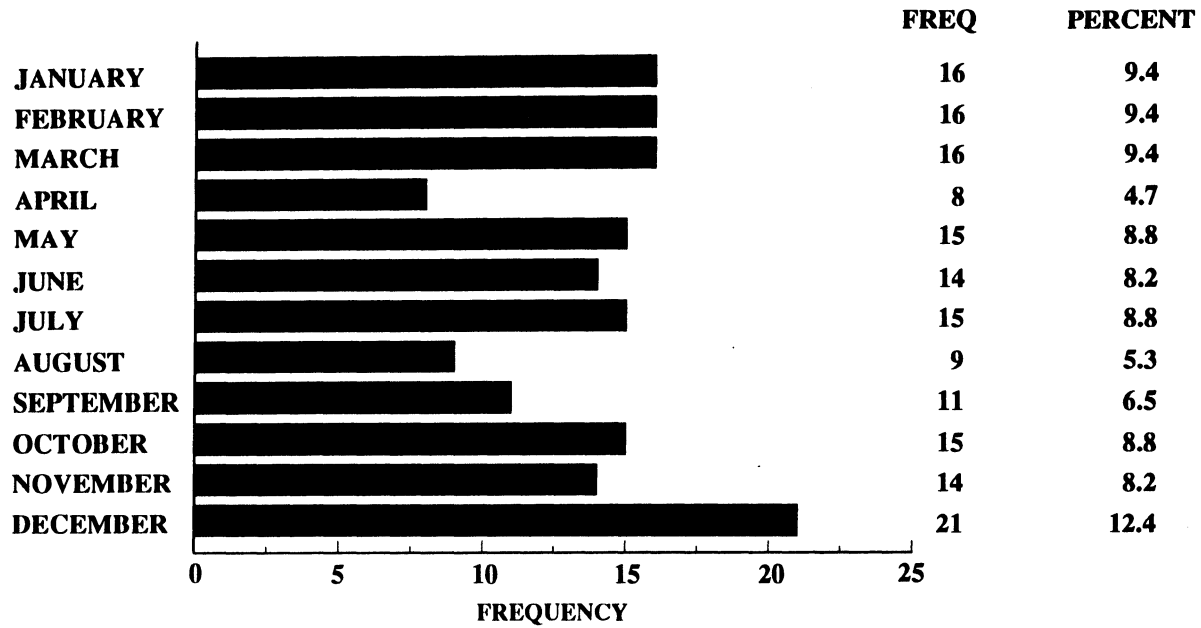


FIGURE 3.0.1

1995 FIRE VEHICLE INVOLVED CRASHES DAY OF WEEK

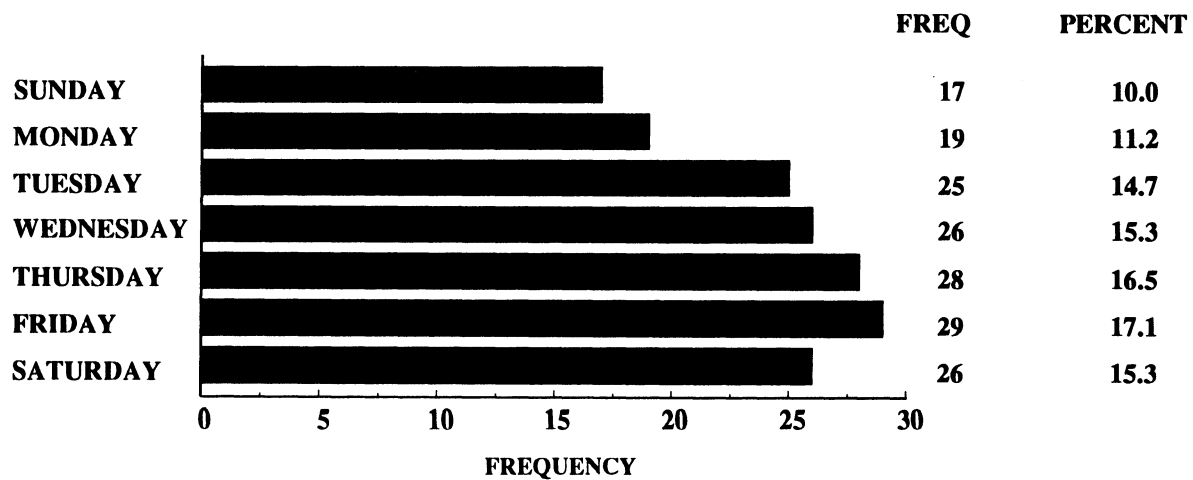
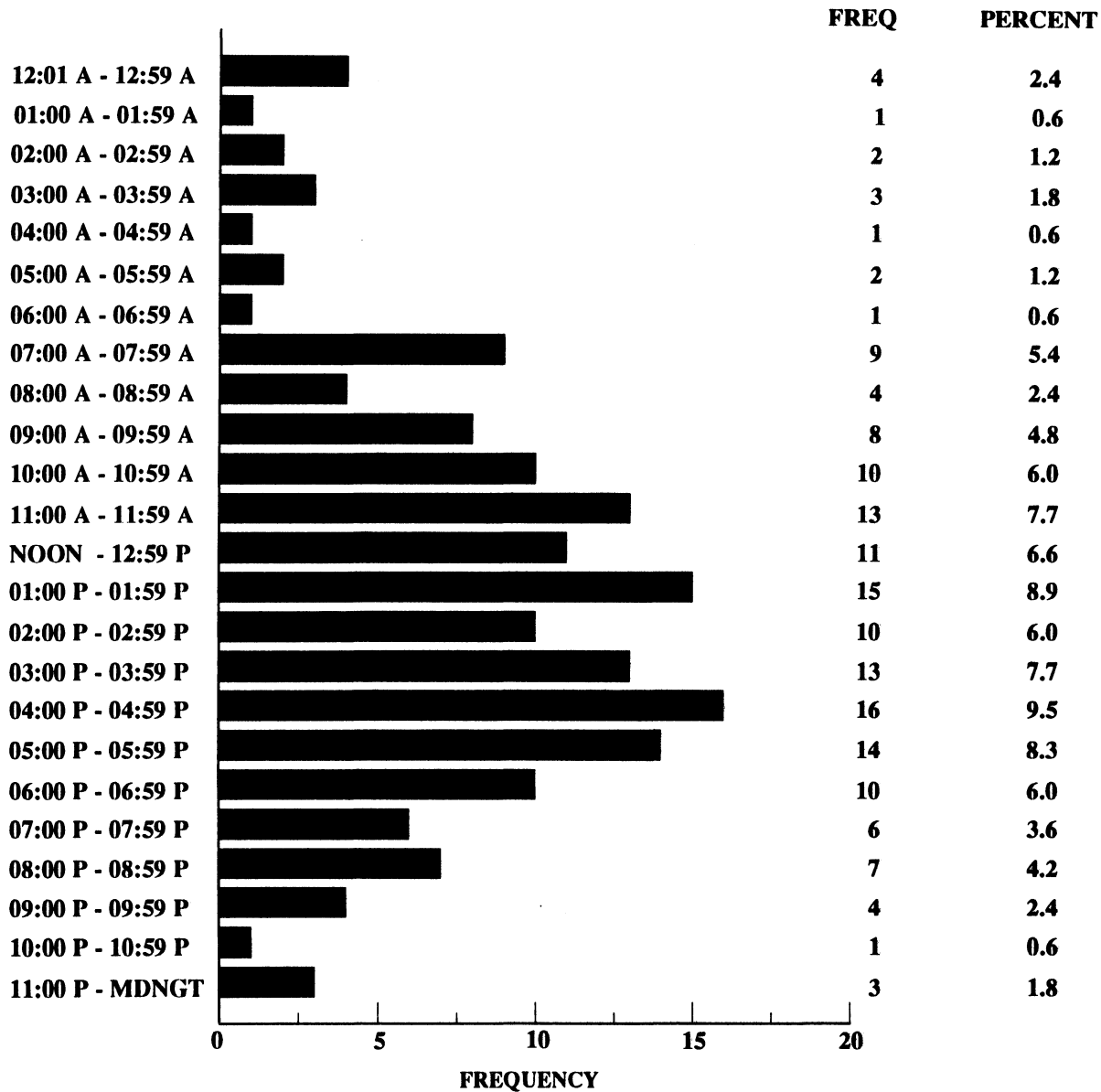


FIGURE 3.0.2

1995 FIRE VEHICLE INVOLVED CRASHES HOUR OF DAY



UNKNOWN DATA NOT INCLUDED

FIGURE 3.0.3

1995 MISSOURI FIRE VEHICLE CRASHES

TYPE OF CIRCUMSTANCE INVOLVED BY CRASH SEVERITY AND PERSON CLASSIFICATION¹

FATAL AND PERSONAL INJURY FIRE VEHICLE CRASHES = 29				TOTAL FIRE VEHICLE CRASHES = 170		
	DRIVER OF FIRE VEHICLE/ VEHICLE	OTHER DRIVER/ VEHICLE/ PEDESTRIAN	TOTAL F & PI	DRIVER OF FIRE VEHICLE/ VEHICLE	OTHER DRIVER/ VEHICLE/ PEDESTRIAN	TOTAL CRASHES
VEHICLE DEFECTS	10.3	3.4	13.8	5.9	1.8	7.6
EXCEEDING SPEED LIMIT/ TOO FAST FOR CONDITIONS	10.3	6.9	17.2	4.7	5.9	10.6
IMPROPER PASSING	0.0	0.0	0.0	0.0	1.2	1.2
VIOLATION OF STOP SIGN	3.4	3.4	6.9	0.6	0.6	1.2
WRONG SIDE NOT PASSING	6.9	0.0	6.9	1.8	0.6	2.4
FOLLOWING TOO CLOSE	0.0	3.4	3.4	0.6	3.5	4.1
IMPROPER SIGNAL	0.0	0.0	0.0	0.0	0.0	0.0
IMPROPER BACKING	0.0	0.0	0.0	1.2	0.0	1.2
IMPROPER TURN	3.4	0.0	3.4	2.4	0.6	2.9
IMPROPER LANE USAGE/CHANGE	3.4	0.0	3.4	1.8	1.2	2.9
WRONG WAY ONE-WAY STREET	0.0	0.0	0.0	0.6	0.0	0.6
IMPROPER START FROM PARK	0.0	0.0	0.0	0.0	0.0	0.0
IMPROPERLY PARKED	3.4	0.0	3.4	1.8	4.1	5.9
FAILED TO YIELD	10.3	13.8	24.1	1.8	12.4	14.1
DRINKING	0.0	0.0	0.0	0.0	1.2	1.2
DRUGS	0.0	0.0	0.0	0.0	0.0	0.0
PHYSICAL IMPAIRMENT	0.0	0.0	0.0	0.0	0.0	0.0
INATTENTION	13.8	51.7	58.6	29.4	35.3	60.0

¹This table identifies the percentage of crashes involving one or more fire vehicles having a specific type of circumstance which contributed to the cause of the crash. This table further defines the percentage of crashes where the contributing circumstance was associated with the driver or his fire vehicle as well as those attributed to other persons and vehicles in the crash. For instance, when examining speed involvement in 1995 Missouri fire vehicle crashes, it was found that a fire vehicle driver was speeding in 4.7% of the crashes. In 5.9% of the crashes another driver was speeding. In 10.6% of the crashes either a fire vehicle driver, another driver, or both drivers were speeding.

TABLE 3.0.9

FIRE VEHICLES INVOLVED IN 1995 MISSOURI CRASHES

TYPE OF VEHICLE BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
AUTOMOBILE	0	0.0	2	6.9	19	13.6	21	12.4
STATION WAGON	0	0.0	1	3.5	0	0.0	1	0.6
SPORT UTILITY VEHICLE	0	0.0	1	3.5	7	5.0	8	4.7
VAN/SMALL BUS	0	0.0	1	3.5	1	0.7	2	1.2
OTHER TRANSPORT DEVICE	0	0.0	4	13.8	15	10.7	19	11.2
PICK-UP TRUCK	0	0.0	3	10.3	9	6.4	12	7.1
OTHER TRUCK	0	0.0	17	58.6	89	63.6	106	62.7
UNKNOWN	0	-	0	-	5	-	5	-
TOTAL	0	0.0	29	100.0	145	100.0	174	100.0

TABLE 3.0.10

FIRE VEHICLES INVOLVED IN 1995 MISSOURI CRASHES

DRIVER INVOLVEMENT BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
DRIVERLESS	0	0.0	2	6.9	20	13.8	22	12.6
KNOWN DRIVER INVOLVED	0	0.0	27	93.1	122	84.1	149	85.6
UNKNOWN DRIVER INVOLVED	0	0.0	0	0.0	3	2.1	3	1.7
TOTAL	0	0.0	29	100.0	145	100.0	174	100.0

TABLE 3.0.11

DRIVERS OF FIRE VEHICLES INVOLVED IN 1995 MISSOURI CRASHES

SEX OF DRIVER BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
MALE	0	0.0	27	100.0	121	99.2	148	99.3
FEMALE	0	0.0	0	0.0	1	0.8	1	0.7
UNKNOWN	0	-	0	-	3	-	3	-
TOTAL	0	0.0	27	100.0	125	100.0	152	100.0

TABLE 3.0.12

DRIVERS OF FIRE VEHICLES INVOLVED IN 1995 MISSOURI CRASHES

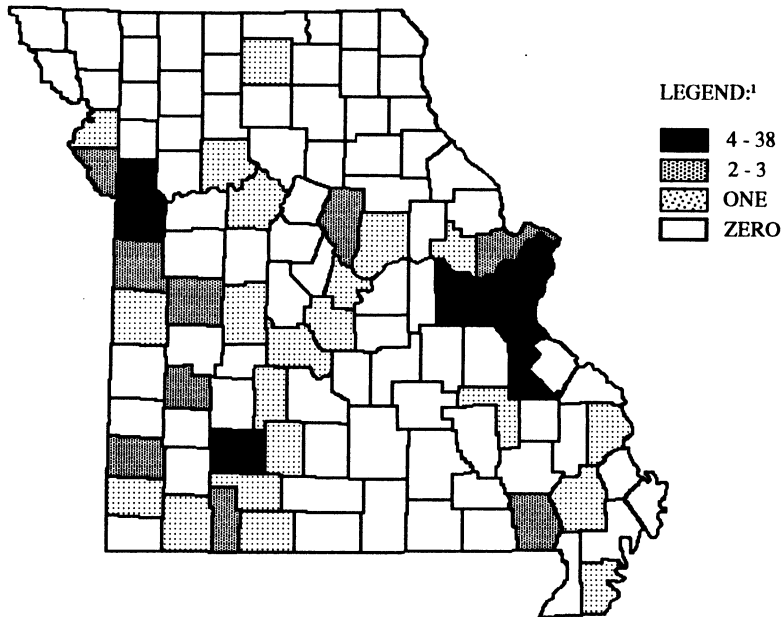
AGE OF DRIVER BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
AVERAGE AGE OF DRIVER	0.0	-	34.1	-	37.6	-	36.9	-
15 YEARS AND UNDER	0	0.0	0	0.0	0	0.0	0	0.0
16 - 20 YEARS	0	0.0	2	7.4	2	1.7	4	2.8
21 - 25 YEARS	0	0.0	3	11.1	7	5.9	10	6.9
26 - 30 YEARS	0	0.0	6	22.2	24	20.3	30	20.7
31 - 35 YEARS	0	0.0	5	18.5	29	24.6	34	23.5
36 - 40 YEARS	0	0.0	4	14.8	13	11.0	17	11.7
41 - 45 YEARS	0	0.0	4	14.8	13	11.0	17	11.7
46 - 50 YEARS	0	0.0	1	3.7	12	10.2	13	9.0
51 - 55 YEARS	0	0.0	1	3.7	9	7.6	10	6.9
56 - 60 YEARS	0	0.0	1	3.7	6	5.1	7	4.8
61 - 65 YEARS	0	0.0	0	0.0	3	2.5	3	2.1
66 YEARS AND OVER	0	0.0	0	0.0	0	0.0	0	0.0
UNKNOWN	0	-	0	-	7	-	7	-
TOTAL	0	0.0	27	100.0	125	100.0	152	100.0

TABLE 3.0.13

1995 FIRE VEHICLE INVOLVED CRASHES

COUNTY QUARTILE ANALYSIS



¹LEGEND CATEGORIES ARE BASED ON QUARTILES OF COUNTIES.

RANK	COUNTY	FREQUENCY	PERCENT	RANK	COUNTY	FREQUENCY	PERCENT
1.0	JACKSON	38	22.4	15.0	CEDAR	2	1.2
2.0	ST. LOUIS CITY	36	21.2	15.0	JASPER	2	1.2
3.0	ST. LOUIS	29	17.1	15.0	STONE	2	1.2
4.0	FRANKLIN	6	3.5	Second Quartile			
5.5	GREENE	5	2.9	Third Quartile			
5.5	JEFFERSON	5	2.9	28.0	BARRY	1	0.6
7.5	CLAY	4	2.4	28.0	BATES	1	0.6
7.5	ST. FRANCOIS	4	2.4	28.0	BENTON	1	0.6
First Quartile				28.0	BUCHANAN	1	0.6
Second Quartile				28.0	CALLAWAY	1	0.6
10.5	BOONE	3	1.8	28.0	CAMDEN	1	0.6
10.5	HENRY	3	1.8	28.0	CAPE GIRARDEAU	1	0.6
10.5	PLATTE	3	1.8	28.0	CARROLL	1	0.6
10.5	ST. CHARLES	3	1.8	28.0	CHRISTIAN	1	0.6
15.0	BUTLER	2	1.2	28.0	COLE	1	0.6
15.0	CASS	2	1.2	28.0	DALLAS	1	0.6

RANK	COUNTY	FREQUENCY	PERCENT	RANK	COUNTY	FREQUENCY	PERCENT
28.0	IRON	1	0.6	77.0	LEWIS	0	0.0
28.0	MILLER	1	0.6	77.0	LINCOLN	0	0.0
28.0	NEWTON	1	0.6	77.0	LINN	0	0.0
28.0	PEMISCOTT	1	0.6	77.0	LIVINGSTON	0	0.0
28.0	SALINE	1	0.6	77.0	MCDONALD	0	0.0
28.0	STODDARD	1	0.6	77.0	MACON	0	0.0
28.0	SULLIVAN	1	0.6	77.0	MADISON	0	0.0
28.0	TANEY	1	0.6	77.0	MARIES	0	0.0
28.0	WARREN	1	0.6	77.0	MARION	0	0.0
28.0	WEBSTER	1	0.6	77.0	MERCER	0	0.0
Third Quartile				77.0	MISSISSIPPI	0	0.0
Fourth Quartile				77.0	MONITEAU	0	0.0
77.0	ADAIR	0	0.0	77.0	MONROE	0	0.0
77.0	ANDREW	0	0.0	77.0	MONTGOMERY	0	0.0
77.0	ATCHISON	0	0.0	77.0	MORGAN	0	0.0
77.0	AUDRAIN	0	0.0	77.0	NEW MADRID	0	0.0
77.0	BARTON	0	0.0	77.0	NODAWAY	0	0.0
77.0	BOLLINGER	0	0.0	77.0	OREGON	0	0.0
77.0	CALDWELL	0	0.0	77.0	OSAGE	0	0.0
77.0	CARTER	0	0.0	77.0	OZARK	0	0.0
77.0	CHARITON	0	0.0	77.0	PERRY	0	0.0
77.0	CLARK	0	0.0	77.0	PETTIS	0	0.0
77.0	CLINTON	0	0.0	77.0	PHELPS	0	0.0
77.0	COOPER	0	0.0	77.0	PIKE	0	0.0
77.0	CRAWFORD	0	0.0	77.0	POLK	0	0.0
77.0	DADE	0	0.0	77.0	PULASKI	0	0.0
77.0	DAVISS	0	0.0	77.0	PUTNAM	0	0.0
77.0	DEKALB	0	0.0	77.0	RALLS	0	0.0
77.0	DENT	0	0.0	77.0	RANDOLPH	0	0.0
77.0	DOUGLAS	0	0.0	77.0	RAY	0	0.0
77.0	DUNKLIN	0	0.0	77.0	REYNOLDS	0	0.0
77.0	GASCONADE	0	0.0	77.0	RIPLEY	0	0.0
77.0	GENTRY	0	0.0	77.0	ST. CLAIR	0	0.0
77.0	GRUNDY	0	0.0	77.0	STE. GENEVIEVE	0	0.0
77.0	HARRISON	0	0.0	77.0	SCHUYLER	0	0.0
77.0	HICKORY	0	0.0	77.0	SCOTLAND	0	0.0
77.0	HOLT	0	0.0	77.0	SCOTT	0	0.0
77.0	HOWARD	0	0.0	77.0	SHANNON	0	0.0
77.0	HOWELL	0	0.0	77.0	SHELBY	0	0.0
77.0	JOHNSON	0	0.0	77.0	TEXAS	0	0.0
77.0	KNOX	0	0.0	77.0	VERNON	0	0.0
77.0	LACLEDE	0	0.0	77.0	WASHINGTON	0	0.0
77.0	LAFAYETTE	0	0.0	77.0	WAYNE	0	0.0
77.0	LAWRENCE	0	0.0	77.0	WORTH	0	0.0
				77.0	WRIGHT	0	0.0

TABLE 3.0.14

4.0 AMBULANCE INVOLVEMENT

This section presents a series of data displays which identify ambulance involvement in Missouri's traffic crash activity. Ambulance traffic crashes are defined as any crash in which one or more ambulances were directly involved in the incident. Data displays also are provided which describe characteristics of the ambulance drivers involved in these traffic crashes.

1995 SUMMARY ANALYSIS

- In 1995, there were 171 traffic crashes involving one or more ambulances in the State of Missouri. Two persons were killed and 73 were injured in these crashes.
- In 30.4% of the traffic crashes involving ambulances, the ambulance was on an emergency run at the time of the incident.
- In 1995, one person was killed or injured in an ambulance related crash every 4.9 days in the State of Missouri.
- Of all 1995 crashes involving ambulances, the first harmful event in 73.7% of the cases involved one motor vehicle in transport striking another motor vehicle in transport. In 16.4% of the cases, it involved a motor vehicle striking a parked vehicle. In 8.2% of the cases, the vehicle struck a fixed object.
- Of all 1995 crashes involving ambulances, 76.6% occurred in an urban area of the State and 23.4% occurred in a rural area.
- Of all ambulance drivers involved in 1995 traffic crashes, 75.0% were male and 25.0% were female. The average age of the ambulance driver was 31.5 years.

1995 AMBULANCE INVOLVED CRASHES

EMERGENCY RUN STATUS

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%	TOTAL NUMBER ¹		AMBULANCE DRIVERS/PASSENGERS ²	
									KILLED	INJURED	KILLED	INJURED
AMBULANCE ON RUN	1	50.0	13	33.3	38	29.2	52	30.4	1	24	1	14
AMBULANCE NOT ON RUN	1	50.0	26	66.7	92	70.8	119	69.6	1	49	1	21
TOTAL	2	100.0	39	100.0	130	100.0	171	100.0	2	73	2	35

¹This statistic indicates the total number of persons killed and injured in a crash where one or more ambulances were involved.

²This statistic indicates the number of ambulance drivers and passengers killed and injured.

TABLE 4.0.1

1995 AMBULANCE INVOLVED CRASHES

CRASH TYPE BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
ANIMAL	0	0.0	0	0.0	0	0.0	0	0.0
BICYCLIST	0	0.0	0	0.0	0	0.0	0	0.0
FIXED OBJECT	2	100.0	2	5.1	10	7.7	14	8.2
OTHER OBJECT	0	0.0	0	0.0	0	0.0	0	0.0
PEDESTRIAN	0	0.0	0	0.0	0	0.0	0	0.0
TRAIN	0	0.0	0	0.0	0	0.0	0	0.0
VEHICLE IN TRANSPORT	0	0.0	35	89.7	91	70.0	126	73.7
VEHICLE ON OTHER ROADWAY	0	0.0	0	0.0	0	0.0	0	0.0
PARKED VEHICLE	0	0.0	2	5.1	26	20.0	28	16.4
NON-COLLISION OVERTURN	0	0.0	0	0.0	1	0.8	1	0.6
NON-COLLISION OTHER	0	0.0	0	0.0	2	1.5	2	1.2
TOTAL	2	100.0	39	100.0	130	100.0	171	100.0

TABLE 4.0.2

1995 AMBULANCE INVOLVED CRASHES

AREA CLASSIFICATION BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
URBAN	0	0.0	35	89.7	96	73.9	131	76.6
RURAL	2	100.0	4	10.3	34	26.1	40	23.4
TOTAL	2	100.0	39	100.0	130	100.0	171	100.0

TABLE 4.0.3

1995 AMBULANCE INVOLVED CRASHES

ROAD CURVATURE BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
STRAIGHT	2	100.0	36	92.3	122	95.3	160	94.7
CURVE	0	0.0	3	7.7	6	4.7	9	5.3
UNKNOWN	0	-	0	-	2	-	2	-
TOTAL	2	100.0	39	100.0	130	100.0	171	100.0

TABLE 4.0.4

1995 AMBULANCE INVOLVED CRASHES

ROAD INCLINE BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
LEVEL	0	0.0	34	89.5	94	73.4	128	76.2
HILL	2	100.0	3	7.9	32	25.0	37	22.0
CREST	0	0.0	1	2.6	2	1.6	3	1.8
UNKNOWN	0	-	1	-	2	-	3	-
TOTAL	2	100.0	39	100.0	130	100.0	171	100.0

TABLE 4.0.5

1995 AMBULANCE INVOLVED CRASHES
ROAD CONDITIONS BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
DRY	1	50.0	25	64.1	89	68.5	115	67.3
WET	0	0.0	11	28.2	28	21.5	39	22.8
SNOW	0	0.0	2	5.1	5	3.9	7	4.1
ICE	1	50.0	1	2.6	8	6.1	10	5.9
MUD	0	0.0	0	0.0	0	0.0	0	0.0
UNKNOWN	0	-	0	-	0	-	0	-
TOTAL	2	100.0	39	100.0	130	100.0	171	100.0

TABLE 4.0.6

1995 AMBULANCE INVOLVED CRASHES
HIGHWAY CLASSIFICATION BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
INTERSTATE	0	0.0	4	10.3	11	8.5	15	8.8
U.S. HIGHWAY	0	0.0	2	5.1	8	6.2	10	5.9
STATE NUMBERED	1	50.0	9	23.1	12	9.2	22	12.9
SINGLE STATE LETTERED	0	0.0	0	0.0	2	1.5	2	1.2
DOUBLE STATE LETTERED	0	0.0	1	2.6	1	0.8	2	1.2
OUTER ROAD	0	0.0	0	0.0	2	1.5	2	1.2
COUNTY ROAD	1	50.0	0	0.0	15	11.5	16	9.4
CITY STREET	0	0.0	22	56.4	73	56.2	95	55.6
INTERSTATE LOOP	0	0.0	0	0.0	0	0.0	0	0.0
OTHER ¹	0	0.0	1	2.6	6	4.6	7	4.1
TOTAL	2	100.0	39	100.0	130	100.0	171	100.0

¹ "Other" includes types of roads that are maintained by the State as well as by local jurisdictions.

TABLE 4.0.7

1995 AMBULANCE INVOLVED CRASHES

HIGHWAY CLASSIFICATION BY AREA CLASSIFICATION AND CRASH SEVERITY

	URBAN								RURAL							
	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
INTERSTATE	0	0.0	4	11.4	6	6.3	10	7.6	0	0.0	0	0.0	5	14.7	5	12.5
U.S. HIGHWAY	0	0.0	2	5.7	5	5.2	7	5.3	0	0.0	0	0.0	3	8.8	3	7.5
STATE NUMBERED	0	0.0	6	17.1	4	4.2	10	7.6	1	50.0	3	75.0	8	23.5	12	30.0
SINGLE STATE LETTERED	0	0.0	0	0.0	1	1.0	1	0.8	0	0.0	0	0.0	1	2.9	1	2.5
DOUBLE STATE LETTERED	0	0.0	1	2.9	1	1.0	2	1.5	0	0.0	0	0.0	0	0.0	0	0.0
OUTER ROAD	0	0.0	0	0.0	2	2.1	2	1.5	0	0.0	0	0.0	0	0.0	0	0.0
COUNTY ROAD	0	0.0	0	0.0	8	8.3	8	6.1	1	50.0	0	0.0	7	20.6	8	20.0
CITY STREET	0	0.0	21	60.0	65	67.7	86	65.7	0	0.0	1	25.0	8	23.5	9	22.5
INTERSTATE LOOP	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
OTHER ¹	0	0.0	1	2.9	4	4.2	5	3.8	0	0.0	0	0.0	2	5.9	2	5.0
TOTAL	0	0.0	35	100.0	96	100.0	131	100.0	2	0.0	4	100.0	34	100.0	40	100.0

¹ "Other" includes types of roads that are maintained by the State as well as by local jurisdictions.

TABLE 4.0.8

1995 AMBULANCE INVOLVED CRASHES MONTH OF YEAR

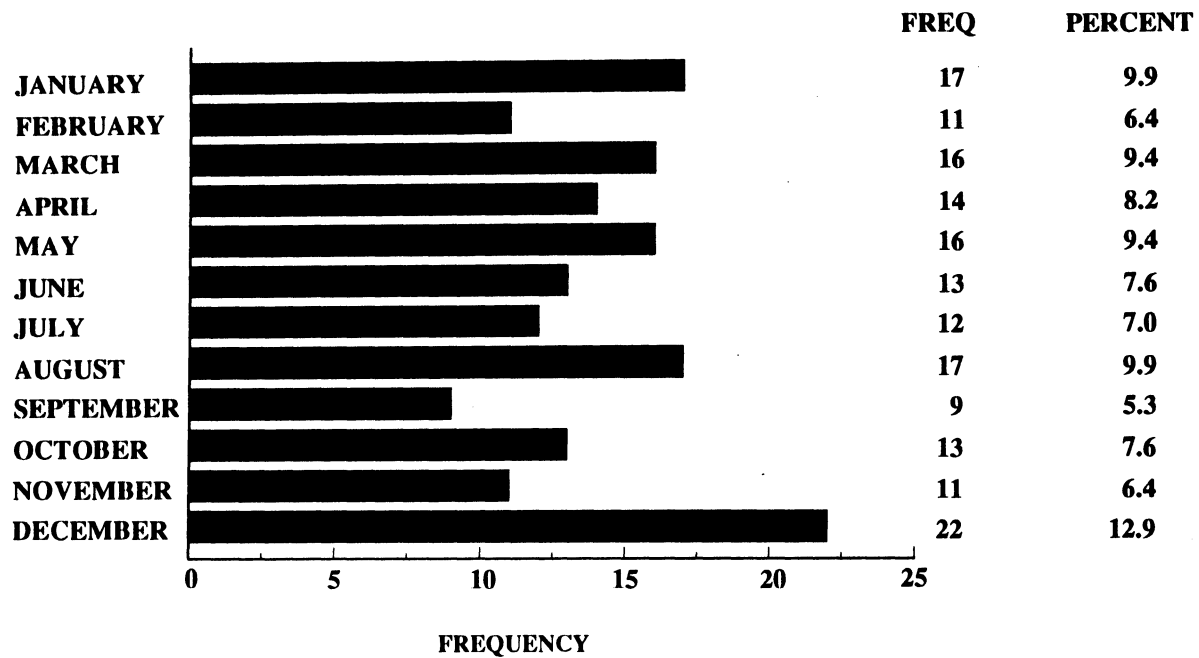


FIGURE 4.0.1

1995 AMBULANCE INVOLVED CRASHES DAY OF WEEK

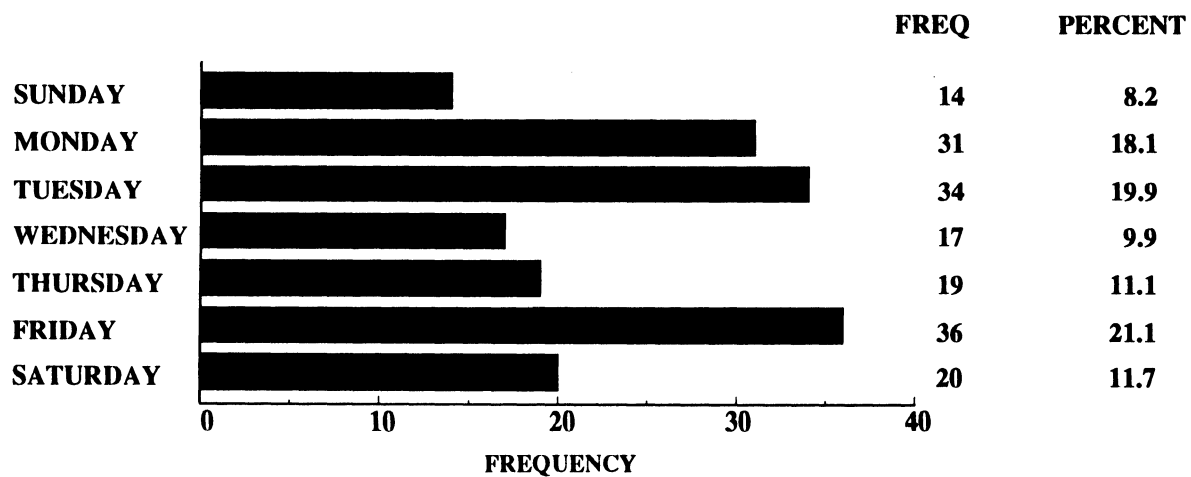
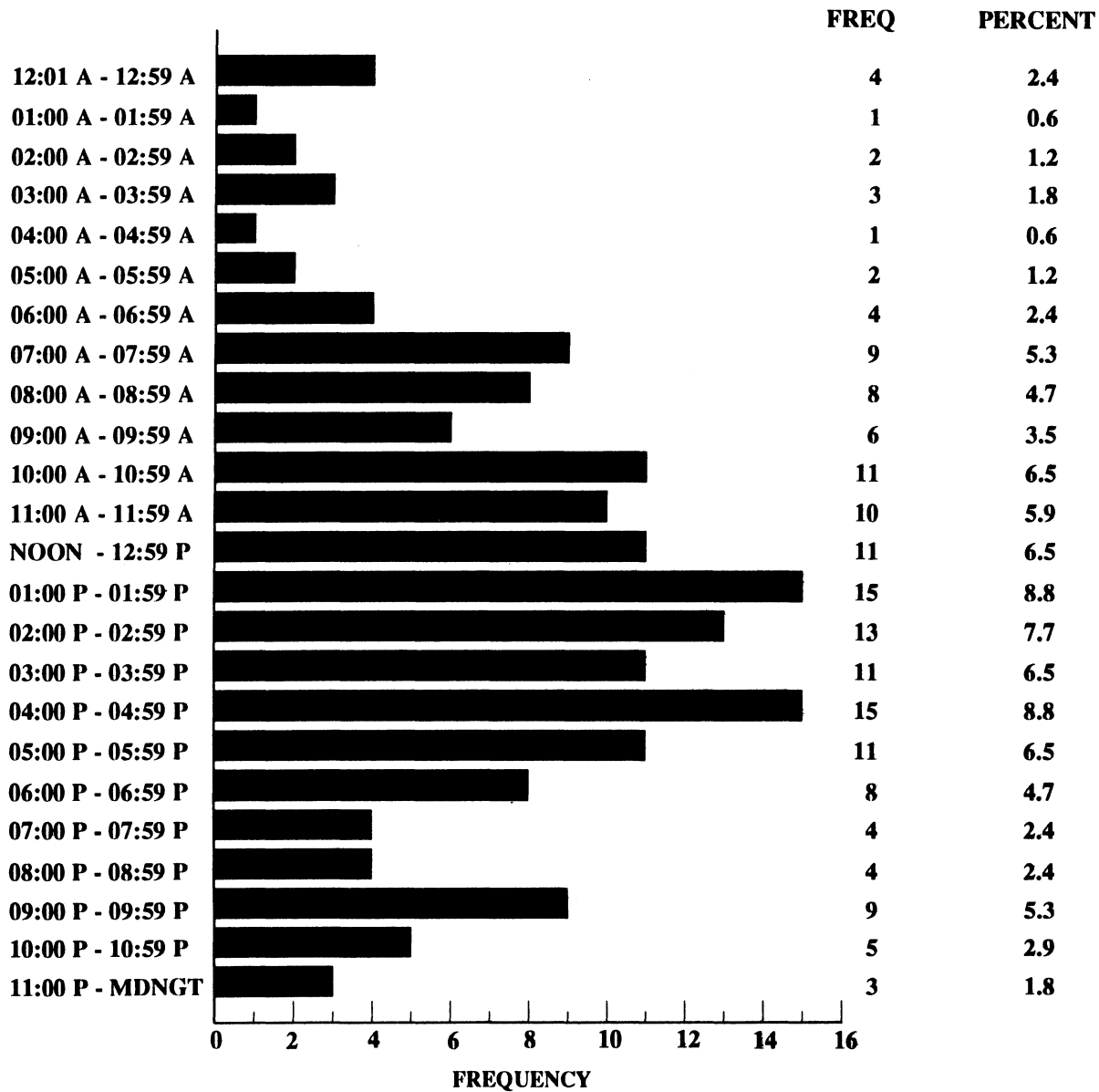


FIGURE 4.0.2

1995 AMBULANCE INVOLVED CRASHES HOUR OF DAY



UNKNOWN DATA NOT INCLUDED

FIGURE 4.0.3

1995 MISSOURI AMBULANCE CRASHES

TYPE OF CIRCUMSTANCE INVOLVED BY CRASH SEVERITY AND PERSON CLASSIFICATION¹

FATAL AND PERSONAL INJURY AMBULANCE CRASHES = 41				TOTAL AMBULANCE CRASHES = 171		
	DRIVER OF AMBULANCE/ VEHICLE	OTHER DRIVER/ VEHICLE/ PEDESTRIAN	TOTAL F & PI	DRIVER OF AMBULANCE/ VEHICLE	OTHER DRIVER/ VEHICLE/ PEDESTRIAN	TOTAL CRASHES
VEHICLE DEFECTS	0.0	0.0	0.0	1.8	0.6	2.3
EXCEEDING SPEED LIMIT / TOO FAST FOR CONDITIONS	7.3	9.8	17.1	4.7	4.1	8.8
IMPROPER PASSING	0.0	2.4	2.4	0.6	2.9	3.5
VIOLATION OF STOP SIGN	2.4	4.9	7.3	1.2	2.3	3.5
WRONG SIDE NOT PASSING	0.0	0.0	0.0	0.6	1.8	2.3
FOLLOWING TOO CLOSE	7.3	2.4	9.8	3.5	3.5	7.0
IMPROPER SIGNAL	0.0	2.4	2.4	0.0	1.8	1.8
IMPROPER BACKING	0.0	0.0	0.0	1.8	1.2	2.9
IMPROPER TURN	4.9	2.4	7.3	2.9	2.3	5.3
IMPROPER LANE USAGE/CHANGE	2.4	2.4	4.9	3.5	1.8	4.7
WRONG WAY ONE-WAY STREET	0.0	0.0	0.0	0.0	1.2	1.2
IMPROPER START FROM PARK	0.0	0.0	0.0	0.0	0.0	0.0
IMPROPERLY PARKED	0.0	0.0	0.0	0.0	0.6	0.6
FAILED TO YIELD	2.4	29.3	31.7	2.3	18.7	20.5
DRINKING	0.0	4.9	4.9	0.0	3.5	3.5
DRUGS	0.0	0.0	0.0	0.0	0.0	0.0
PHYSICAL IMPAIRMENT	0.0	0.0	0.0	0.0	0.0	0.0
INATTENTION	24.4	34.1	53.7	24.0	29.8	51.5

¹This table identifies the percentage of crashes involving one or more ambulances having a specific type of circumstance which contributed to the cause of the crash. This table further defines the percentage of crashes where the contributing circumstance was associated with the driver or his ambulance as well as those attributed to other persons and vehicles in the crash. For instance, when examining speed involvement in 1995 Missouri ambulance crashes, it was found that an ambulance driver was speeding in 4.7% of the crashes. In 4.1% of the crashes another driver was speeding. In 8.8% of the crashes either an ambulance driver, another driver, or both drivers were speeding.

TABLE 4.0.9

AMBULANCES INVOLVED IN 1995 MISSOURI CRASHES

DRIVER INVOLVEMENT BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
DRIVERLESS	0	0.0	2	5.1	10	7.6	12	7.0
KNOWN DRIVER INVOLVED	2	100.0	37	94.9	121	92.4	160	93.0
UNKNOWN DRIVER INVOLVED	0	0.0	0	0.0	0	0.0	0	0.0
TOTAL	2	100.0	39	100.0	131	100.0	172	100.0

TABLE 4.0.10

DRIVERS OF AMBULANCES INVOLVED IN 1995 MISSOURI CRASHES

SEX OF DRIVER BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
MALE	2	100.0	27	73.0	91	75.2	120	75.0
FEMALE	0	0.0	10	27.0	30	24.8	40	25.0
UNKNOWN	0	-	0	-	0	-	0	-
TOTAL	2	100.0	37	100.0	121	100.0	160	100.0

TABLE 4.0.11

DRIVERS OF AMBULANCES INVOLVED IN 1995 MISSOURI CRASHES

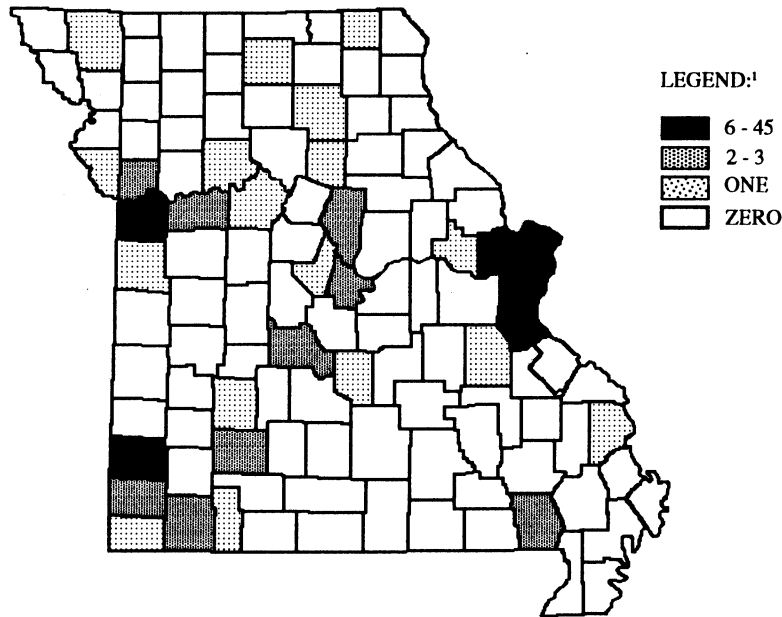
AGE OF DRIVER BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
AVERAGE AGE OF DRIVER	26.5	-	32.3	-	31.4	-	31.5	-
15 YEARS AND UNDER	0	0.0	0	0.0	0	0.0	0	0.0
16 - 20 YEARS	0	0.0	2	5.6	2	1.7	4	2.5
21 - 25 YEARS	1	50.0	10	27.8	35	28.9	46	28.9
26 - 30 YEARS	1	50.0	8	22.2	29	24.0	38	23.9
31 - 35 YEARS	0	0.0	6	16.7	27	22.3	33	20.8
36 - 40 YEARS	0	0.0	5	13.9	9	7.4	14	8.8
41 - 45 YEARS	0	0.0	2	5.6	10	8.3	12	7.6
46 - 50 YEARS	0	0.0	1	2.8	5	4.1	6	3.8
51 - 55 YEARS	0	0.0	0	0.0	2	1.7	2	1.3
56 - 60 YEARS	0	0.0	0	0.0	0	0.0	0	0.0
61 - 65 YEARS	0	0.0	1	2.8	1	0.8	2	1.3
66 YEARS AND OVER	0	0.0	1	2.8	1	0.8	2	1.3
UNKNOWN	0	-	1	-	0	-	1	-
TOTAL	2	100.0	37	100.0	121	100.0	160	100.0

TABLE 4.0.12

1995 AMBULANCE INVOLVED CRASHES

COUNTY QUARTILE ANALYSIS



¹LEGEND CATEGORIES ARE BASED ON QUARTILES OF COUNTIES.

RANK	COUNTY	FREQUENCY	PERCENT	RANK	COUNTY	FREQUENCY	PERCENT
1.0	ST. LOUIS CITY	45	26.3	12.5	LAFAYETTE	2	1.2
2.0	JACKSON	36	21.1	Second Quartile			
3.0	ST. LOUIS	34	19.9	Third Quartile			
5.0	JASPER	6	3.5	24.0	CAPE GIRARDEAU	1	0.6
5.0	JEFFERSON	6	3.5	24.0	CARROLL	1	0.6
5.0	ST. CHARLES	6	3.5	24.0	CASS	1	0.6
First Quartile				24.0	MCDONALD	1	0.6
Second Quartile				24.0	MACON	1	0.6
8.0	BOONE	3	1.8	24.0	MONITEAU	1	0.6
8.0	CLAY	3	1.8	24.0	NODAWAY	1	0.6
8.0	NEWTON	3	1.8	24.0	PLATTE	1	0.6
12.5	BARRY	2	1.2	24.0	POLK	1	0.6
12.5	BUTLER	2	1.2	24.0	PULASKI	1	0.6
12.5	CAMDEN	2	1.2	24.0	RANDOLPH	1	0.6
12.5	COLE	2	1.2	24.0	SALINE	1	0.6
12.5	GREENE	2	1.2	24.0	SCOTLAND	1	0.6

RANK	COUNTY	FREQUENCY	PERCENT	RANK	COUNTY	FREQUENCY	PERCENT
24.0	STONE	1	0.6	74.0	KNOX	0	0.0
24.0	SULLIVAN	1	0.6	74.0	LACLEDE	0	0.0
24.0	WARREN	1	0.6	74.0	LAWRENCE	0	0.0
24.0	WASHINGTON	1	0.6	74.0	LEWIS	0	0.0
Third Quartile				74.0	LINCOLN	0	0.0
Fourth Quartile				74.0	LINN	0	0.0
74.0	ADAIR	0	0.0	74.0	LIVINGSTON	0	0.0
74.0	ANDREW	0	0.0	74.0	MADISON	0	0.0
74.0	ATCHISON	0	0.0	74.0	MARIES	0	0.0
74.0	AUDRAIN	0	0.0	74.0	MARION	0	0.0
74.0	BARTON	0	0.0	74.0	MERCER	0	0.0
74.0	BATES	0	0.0	74.0	MILLER	0	0.0
74.0	BENTON	0	0.0	74.0	MISSISSIPPI	0	0.0
74.0	BOLLINGER	0	0.0	74.0	MONROE	0	0.0
74.0	BUCHANAN	0	0.0	74.0	MONTGOMERY	0	0.0
74.0	CALDWELL	0	0.0	74.0	MORGAN	0	0.0
74.0	CALLAWAY	0	0.0	74.0	NEW MADRID	0	0.0
74.0	CARTER	0	0.0	74.0	OREGON	0	0.0
74.0	CEDAR	0	0.0	74.0	OSAGE	0	0.0
74.0	CHARITON	0	0.0	74.0	OZARK	0	0.0
74.0	CHRISTIAN	0	0.0	74.0	PEMISCOTT	0	0.0
74.0	CLARK	0	0.0	74.0	PERRY	0	0.0
74.0	CLINTON	0	0.0	74.0	PETTIS	0	0.0
74.0	COOPER	0	0.0	74.0	PHELPS	0	0.0
74.0	CRAWFORD	0	0.0	74.0	PIKE	0	0.0
74.0	DADE	0	0.0	74.0	PUTNAM	0	0.0
74.0	DALLAS	0	0.0	74.0	RALLS	0	0.0
74.0	DAVIESS	0	0.0	74.0	RAY	0	0.0
74.0	DEKALB	0	0.0	74.0	REYNOLDS	0	0.0
74.0	DENT	0	0.0	74.0	RIPLEY	0	0.0
74.0	DOUGLAS	0	0.0	74.0	ST. CLAIR	0	0.0
74.0	DUNKLIN	0	0.0	74.0	ST. FRANCOIS	0	0.0
74.0	FRANKLIN	0	0.0	74.0	STE. GENEVIEVE	0	0.0
74.0	GASCONADE	0	0.0	74.0	SCHUYLER	0	0.0
74.0	GENTRY	0	0.0	74.0	SCOTT	0	0.0
74.0	GRUNDY	0	0.0	74.0	SHANNON	0	0.0
74.0	HARRISON	0	0.0	74.0	SHELBY	0	0.0
74.0	HENRY	0	0.0	74.0	STODDARD	0	0.0
74.0	HICKORY	0	0.0	74.0	TANEY	0	0.0
74.0	HOLT	0	0.0	74.0	TEXAS	0	0.0
74.0	HOWARD	0	0.0	74.0	VERNON	0	0.0
74.0	HOWELL	0	0.0	74.0	WAYNE	0	0.0
74.0	IRON	0	0.0	74.0	WEBSTER	0	0.0
74.0	JOHNSON	0	0.0	74.0	WORTH	0	0.0
				74.0	WRIGHT	0	0.0

TABLE 4.0.13

GLOSSARY

AMBULANCE INVOLVED TRAFFIC CRASH: Any crash in which one or more ambulances were directly involved in the incident.

EMERGENCY SERVICE VEHICLE INVOLVED TRAFFIC CRASH: Any crash in which one or more emergency service vehicles (i.e., police, fire, ambulance, and 'other' emergency service vehicle) were directly involved in the incident.

FATAL TRAFFIC CRASH: A crash in which one or more persons were killed as a result of the crash and their death(s) occurred within 30 days of the incident. From 1979 - 1987, a crash would be classified as a fatal if their death(s) occurred within 90 days of the incident. Prior to 1979, a crash would be classified as a fatal if their death(s) occurred within 12 months of the incident.

FIRE VEHICLE INVOLVED TRAFFIC CRASH: Any crash in which one or more fire vehicles were directly involved in the incident.

PERSONAL INJURY TRAFFIC CRASH: Any crash in which no person was killed but one or more persons were injured in the incident.

POLICE VEHICLE INVOLVED TRAFFIC CRASH: Any crash in which one or more police vehicles were directly involved in the incident.

PROPERTY DAMAGE TRAFFIC CRASH: Any crash in which no person was killed or injured but property was damaged in the incident.

QUARTILE: The value that marks the boundary between two consecutive intervals in a frequency distribution of four intervals with each containing one quarter of the total population.

RATE OF CHANGE: The formula is:

$$\frac{\text{Value in Current Period} - \text{Value in Base Period}}{\text{Value in Base Period}} \times 100$$

RURAL AREA: Any community of less than 5,000 population or an unincorporated area of the State.

URBAN AREA: Any community in the State having a population of 5,000 or more.

